

English House Condition Survey 2007

Annual Report





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Communities and Local Government Publications Tel: 030 0123 1124 Fax: 030 0123 1125 Email: product@communities.gsi.gov.uk Online via the Communities and Local Government website: www.communities.gov.uk

September 2009

Product Code: 09 ACST 06068

ISBN: 978-14098-1783-3

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Acknowledgements

The English House Condition Survey is dependent on a number of people and organisations who are involved in its design, management, data collection, processing and analysis. The Department would like to thank in particular:

- The Office for National Statistics (ONS) who manage the EHCS on behalf of CLG. 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 CLG staff who manage and work on the survey.

Introduction

- This is the last of the English House Condition Survey publications in a series that began with reports every five years from 1971 to 2001 followed by annual reports from 2003. From 2008, annual assessments of the condition and energy efficiency of the housing stock will be reported through the English Housing Survey¹, which combines the EHCS with the Department's Survey of English Housing. The Department's intension is to continue to publish consistent and comparable with previous EHCS publications within the reporting framework of the new survey.
- 2. The 2007 EHCS Annual Report is organised in two main sections. The first section provides an overview of the housing stock regarding its facilities, accessibility, condition and energy performance and disparities in the distribution of 'poor' housing. This looks at trends using the longest period for which consistent data is available, and provides detailed Summary Statistics Tables consistent with those of the 2006 report. The second section contains three chapters that look in depth at specific housing issues: energy performance, disrepair and the accessibility and adaptability of the housing stock for people with mobility problems. The focus of these chapters, wherever possible, is to assess the need and potential for improvement. Some of the key findings in the second section are necessarily reproduced in the first overview section. The Glossary provides definitions of the terms used throughout the report.
- Initial 2007 key findings from the survey were published in the 2007 EHCS Headline Report in January 2009. This is available at: www.communities.gov.uk/housing/housingresearch/housingsurveys/ englishhousecondition/ehcsreports
- 4. The 2007 results relate to continuous fieldwork carried out between April 2006 and March 2008 and are presented as the mid-point position of April 2007, which is taken as the average position for the fieldwork period covered. These results are based on a sample of 16,217 dwellings and 15,604 households.

Achieved sample for 2007 findings					
	dwellings	households			
private sector	10,262	9,871			
social sector	5,955	5,733			
all sectors	16,217	15,604			

5. 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.

Further information about the English Housing Survey is available on the Department website www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousingsurvey

6. Details on the sample design, structure, response rate, data quality and details of key measures of condition and energy performance used in the report are provided in the survey's Technical Report which is updated and made available on the Department's website from the following address:

http://www.communities.gov.uk/housing/housingresearch/housingsurveys

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Chapter 1: Overview of housing conditions

This chapter provides an overview of the housing stock regarding its amenities, accessibility, condition and energy performance, and on disparities in housing conditions between different groups of households. Summary Statistics Tables at the end of this first chapter provide systematic information on how these are distributed by tenure, dwelling, area and household characteristics. The chapter includes some findings from the issue focussed chapters of the second section of the report.

Key findings:

- Some 8.6 million (39% of all) homes were built before 1945, including 4.5 million built before 1919. While there is considerable variability, the oldest homes generally performed less well than newer housing regarding their condition and energy performance. The pre-1919 housing stock made up a very high proportion of private rented (41%), city and other urban centre (42%) and village and other traditional rural (47%) housing.
- Some 85% of households had smoke alarms in 2007, up from 67% in 1996. Some 88% of social households had smoke alarms (39% had mains powered detectors) compared to 85% of private sector households (only 16% mains powered). Households living in converted flats (72%) or purpose built high rise flats (75%) were less likely to have smoke alarms than those living in other types of accommodation.
- In terms of meeting the needs of people with mobility problems, the housing stock performed well in providing features such as living room already at ground or entry level (94% of all housing), bedroom or space to provide one at entry level (83%) and space for turning of wheelchairs in kitchens and living rooms (68%); but less well in possessing a flush threshold to the home (20%) and level access to the main entrance (16%).
- There were 7.7 million non-decent homes in 2007, a little under 35% of the housing stock. Social housing was less likely to be non-decent than privately owned homes (29% and 36% respectively). The survey shows no (statistically significant) change in the overall number or proportion homes that were non-decent under the updated definition between 2006 and 2007. There was also no significant change in the overall number or proportion of homes with any Housing Health and Safety Category 1 rated hazards over this period.
- Of the 1.1 million non-decent social sector homes the survey assessed that 64% were straightforward to bring up to standard, the rest not so (mainly because they were technically difficult or expensive to treat).
- The proportion of homes with damp problems has reduced from 13% in 1996 to 9% in 2007.

- The amount of disrepair in the housing stock requiring urgent treatment halved between 1996 and 2007, the largest reduction evident in the private rented sector. Nevertheless the average level of disrepair remained highest in the private rented sector and lowest in the owner-occupied and RSL sectors.
- The energy efficiency rating of the housing stock steadily improved in value from 42 SAP points in 1996 to 50 in 2007. Social sector homes, with an average SAP rating of 58 were more energy efficient than those in the private sector SAP rating of 48. The private rented sector is now on average as energy efficient as the owneroccupied stock.
- Improvement in the energy performance of the housing stock since 1996 has been driven by increased use of gas fired central heating systems and condensing boilers (the latter now being a mandatory for new and replacement boilers), and more homes having their cavity walls and lofts (better) insulated. For example, the proportion of cavity walls insulated increased from 22% to 47% between 1996 and 2007.
- Considerable further improvement in the energy performance of the housing stock could be achieved by carrying out straightforward and cost effective measures such as (better) insulation and boiler upgrades. The survey estimates that 91% of housing would benefit from a package of such measures (costing on average around £1,500 for each home improved) that could increase the overall energy efficiency rating of the stock by 10 SAP points and reduce notional annual CO₂ emissions related to the heating of homes by 22%.
- Housing policy targets improvements towards vulnerable households in the private sector whose choice is limited by income or disability and to households renting from social landlords. Vulnerable private tenants were most likely to be living in non-decent accommodation (52% compared to 35% of vulnerable homeowners and to 28% of social tenants).
- The homes of social tenants and vulnerable private sector households (owners and tenants) improved more on average than those of more affluent households over the period 1996 to 2006, under the original definition of the Decent Homes standard. It is too early to establish any firm trend under the updated definition of decent homes from 2006.
- Older households were much more likely than average to live in non-decent homes if they had been resident in their current accommodation for a long time (42% of older households resident 30 or more years in 2007) and this was evident in both private and social sectors and whether or not they were vulnerable.
- Of households with children, those who were vulnerable and privately renting were much more likely than average to live in non-decent homes (46% in 2007). Households with children in the social sector were less likely than average to live in non-decent homes (28%).

Housing stock, amenities and accessibility

Stock profile

1. There were around 22.2 million homes in 2007, 950,000 of which were vacant at the time of the survey.¹ The private sector comprised 82% of the stock (18.3 million homes), made up of 15.6 million owner occupied homes (70%) and 2.7 million private rented homes (12%). There were 3.9 million social sector homes (18% of the stock), 2.0 million (9%) of which were owned by local authorities and 1.9 million (9%) by Registered Social Landlords (RSLs).²

2. The great majority (83%) of homes were houses, mostly commonly terraced or semidetached. The remainder of the stock (3.8 million) comprised flats, the majority of which were purpose built ('pb') low rise flats, Figure 1.1a.

3. Approximately three fifths of homes (59%) were located in suburban residential areas, with approximately a further fifth (22%) in city and other urban centres and the remainder in rural areas, Figure 1.1b.



- ¹ In this report the term 'homes' is used in a generic way to refer to all dwellings whether occupied or vacant.
- ² See Summary Statistics Table SST2.0 for a detailed breakdown of the housing sectors by various dwelling/ area characteristics.

4. England has a relatively old housing stock with some 8.6 million homes (39%) built before 1945, including 4.8 million built before 1919. A fifth of homes (4.4 million) have been built since 1980, Figure 1.2.



5. The age of a home is strongly associated with its condition and energy performance. The oldest (pre-1919) homes generally perform less well in these respects than newer homes. However there is considerable variation in the condition, quality and energy efficiency of these older properties.

6. Table 1.1 provides a detailed breakdown of the tenure, type and location of the housing stock by its age in 2007. Just over half of the pre-1919 homes (52%) were terraced houses and of the 757,000 converted flats, 646,000 (85%) were built before 1919. This contrasts with the predominance of semi-detached houses and, latterly, detached houses since 1919. Two thirds of all low rise purpose built flats were built after 1964, and these comprise one fifth of all post 1980 housing.

Table 1.1: Housing stock characteristics by dwelling age, 2007							
	pre- 1919	1919 to 1944	1945 to 1964	1965 to 1980	post 1980	all dwellings	
tenure: owner occupied private rented local authority RSL	3,366 1,132 81 187	2,937 383 351 193	2,776 311 791 466	3,309 425 631 440	3,172 487 133 617	15,560 2,738 1,987 1,904	
type: small terraced house medium/large terraced house semi-detached house detached house bungalow converted flat purpose built flat, low rise purpose built flat, high rise	757 1,740 764 586 64 646 187 22	407 613 1,871 440 219 69 235 10	271 592 1,780 453 606 33 502 107	279 759 1,030 922 723 6 935 151	470 351 657 1,572 489 4 838 27	2,185 4,056 6,103 3,973 2,102 757 2,696 318	
size: less than 50m ² 50 to 69m ² 70 to 89m ² 90 to 109m ² 110m ² or more	417 1,054 1,205 700 1,391	200 929 1,328 627 781	344 1,056 1,649 647 649	646 1,083 1,520 687 869	772 1,085 739 576 1,237	2,378 5,208 6,440 3,237 4,926	
location: city centre other urban centre suburban residential rural residential village centre isolated rural	303 1,728 1,571 409 352 403	58 669 2,686 293 82 77	83 523 2,986 555 118 80	91 672 3,092 726 161 62	111 568 2,791 670 162 107	645 4,160 13,126 2,652 876 729	
local area deprivation: most deprived 20% 2nd 3rd 4th least deprived 20%	961 1,159 1,148 992 506	781 872 794 724 693	1,044 937 825 755 784	915 829 888 1,070 1,104	612 676 810 1,070 1,240	4,313 4,473 4,465 4,611 4,328	
all dwellings	4,766	3,864	4,345	4,806	4,409	22,189	
base: all dwellings							

7. The different tenures have very different age profiles, Figure 1.3. While the owner occupied sector is fairly evenly spread across the five age bands, other tenures have distinct peaks. Some 41% of private rented homes were built before 1919, significantly higher than any other tenure. In contrast the RSL stock has the highest proportion of homes built since 1980 (32%). The majority (72%) of local authority homes were built during the period 1945 to 1980. The majority of homes in each age group are owner occupied, reflecting the preponderance of this sector in the housing stock.



8. The oldest (pre-1919) homes were predominant within traditional rural locations (village centres, hamlets and isolated rural properties), where they comprised 47% of all homes, and in city and other urban centres, where they made up 42% of housing in 2007, Figure 1.4.

9. Some 59% of the pre-1919 stock is located in these areas (43% in the city and other urban centres, 16% in the traditional rural areas). In contrast the majority (63%) of homes built since 1980 are located in suburban residential areas.



10. Only 11% of homes built before 1919 were located in the least deprived 20% of areas, although neither were they particularly concentrated in the most deprived areas, Figure 1.5. In contrast homes built since 1980 (83% of which were privately owned) were disproportionately concentrated in the least deprived areas, and constituted 28% of homes in the 20% least deprived areas compared to only 14% of homes in the 20% most deprived areas.



Amenities

11. In terms of contemporary housing conditions and standards, provision of basic amenities (a kitchen sink; a bath or shower in a bathroom, a wash hand basin; hot and cold water supply to these, and an inside WC) is of limited relevance in assessing the housing stock. Less than 200,000 (1% of) dwellings lack any of the five basic amenities. This figure has remained almost constant since 1991 and now consists largely of dwellings waiting or undergoing refurbishment.

12. In 2007, 9.0 million (41% of) homes had a second toilet (up from 31% in 1996) and 4.6 million (21%) had a second bath/shower (compared to 13% in 1996). Social sector homes were much less likely to have these amenities than those in the private sector, Figure 1.6. Some 45% of private sector homes had a second toilet and 25% had a second bath or shower but only 19% of social sector homes had a second WC and just 2% had a second bath/shower.

13. As expected, larger homes were more likely to have a second toilet or a second bath/ shower. Only 1% of homes less than 50m2 in size had a second toilet and similarly only 1% had a second bath/shower room. In contrast, 87% of homes greater than 110m2 in size had a second toilet and 61% had a second bath/shower. A second toilet and a second bath/ shower were most prevalent in homes built after 1990 (65% and 50% of these homes respectively).



3. Summary Statistic Tables SST2.1-SST2.3 at the end of this chapter provide more information on amenities by homes, area and households.

14. In 2007, 9.3 million (42%) homes had a garage; the vast majority of them in the private sector. Only 6% of social rented homes had a garage. Again, larger homes were much more likely to have garages, with only 7% of homes less than 50m² in size possessing a garage compared to 73% of homes greater than 110m² in size. Homes in rural areas were more likely to have a garage than those in suburban residential areas (58% compared with 46%). Only about 1 in 6 (17%) of homes in city and other urban centres had a garage.

15. Overall, 83% of homes had adequate car parking provision, either in the form of a garage, other off road parking or adequate street parking. Some 29% of social housing had inadequate street parking or no parking provision compared to 15% in the private sector.

16. Some 19.3 million homes (87%) had a private plot (a garden or yard for exclusive use of the household). As might be expected, virtually all homes without private plots were flats, and this largely accounts for the lower incidence of private plots in the social rented sector. Only two thirds (67%) of social rented homes had a private plot compared with 91% in the private sector.

17. Some 85% of households had smoke alarms present in their homes (20% mains powered, 65% battery operated), leaving nearly 3.3 million (15% of) households without such a device. Tenants in social housing were a little more likely to have smoke alarms (88% did so) compared to households in private sector homes (85%). However, they were more than twice as likely to have a mains powered detector as those in the private sector. Some 45% of households renting from RSLs and 34% of those renting from local authorities had mains powered smoke alarms compared with just 16% for private renters and owner occupiers. Households living in converted flats and purpose built high rise flats were less likely than those living in other types of accommodation to have smoke alarms (72% and 75% respectively).

18. The level of deprivation of the area is more strongly associated with the presence of some services and amenities than others, Figure 1.7. Homes in the most deprived areas are much less likely to have second toilets, second showers or baths or garages than those in more affluent areas. However area deprivation appears to be less of a factor regarding the presence of a private plot, adequate parking and a smoke alarm. Smoke alarms were present in 83% of homes in the most deprived 10% of areas, compared to 89% of homes in the least deprived 10% of areas.





19. Nearly a third of households (31%) had a water meter in 2007, up from 19% in 2001.³ The incidence of water meters varies considerably by tenure and dwelling age. Some 35% of owner occupied households had a water meter, compared to 29% of RSL households, 24% of private rented households and just 11% of local authority households. The older the home the less likely it was to have a water meter. Just 17% of those in pre-1919 homes had a water meter compared to 80% of households living in homes built after 1990.

Accessibility and adaptability

20. Overall some 4.5 million households (21% of all) include one or more people with a reported mobility problem; the majority of whom are aged 60 years or more. Suitable accessible housing is required for people with mobility problems, who may find that their current accommodation limits their independence and social life as well as presenting increased safety hazards. However, many other households would benefit from the features of accessible homes e.g. households with young children.

21. The survey assesses the presence of eleven features that enable homes to be more accessible and adaptable to mobility needs people may have or develop. These are based on the accessibility standards for new homes in Part M of the current Building Regulations and on Lifetime Homes (see Chapter 4 for more details of these features and their presence in the housing stock).⁴

22. Some features were relatively common in the existing stock such as living room already at ground or entry level (94%), bedroom or space to provide one at entry level (83%) and space for turning of wheelchairs in kitchens and living rooms (68%), Figure 1.7. Other aspects were less common – only 20% of homes possessed a flush threshold and about 16% had level access to the main entrance.

23. The first four of the features in Figure 1.8 are considered to be the most important for enabling people with mobility problems to visit a home (that is, to gain access, move around and have use of a WC on the ground or entry floor). Around 740,000 (3% of) homes across the whole stock possessed all four of these features and could therefore be considered 'visitable'. Chapter 4 looks in detail at how far the existing housing stock can be made more accessible and adaptable. This indicates that around 2.6 million additional homes (12% of the housing stock) could be made visitable if minor work only were carried out and a further 9.6 million (43%) could comply if more major work involving internal structural alterations were carried out.

³ Information on the presence of a water meter is collected from the householder during the interview survey.

⁴ The survey is not able to assess the presence of wheelchair accessible lifts in flats which impact on the accessibility of flats located off the ground/access floor of the building.



24. Just over half of all homes (51%) met at least six of the eleven criteria for an 'accessible and adaptable' home, although only around 110,000 (0.5% of) homes met all. With only minor works, the number of homes meeting all criteria could be raised to about 920,000.

Condition of the stock

Decent homes

25. The survey estimates there were 7.7 million non-decent homes in 2007, a little under 35% of the housing stock, Table 1.2.⁵ RSL homes were least likely to be non-decent (26%) and privately rented homes were most likely to be non-decent (45%). Overall 1.1 million homes in the social sector were non-decent and social housing was less likely to be non-decent than privately owned homes (29% and 36% respectively).⁶

- ⁵ From 2006 the definition of decent homes was updated with the replacement of the Fitness Standard by the Housing Health and Safety Rating System (HHSRS) as the statutory criterion of decency. Estimates using the updated definition of decent homes are not comparable with those based on the original definition. Accordingly any change in the number of decent and non-decent homes will be referenced to 2006 only. Estimates for 1996 to 2006 using the original definition are available in the 2006 EHCS Headline and Annual Reports.
- ⁶ Estimates from the EHCS are based solely on whether a home meets the four stated requirements set out in the updated definition of decent home (see *A Decent Home: Definition and guidance for implementation*, Communities and Local Government, June 2006), and is an assessment of the property as observed by surveyors and subject to any limitations of the information they collect. The EHCS estimates in this report do not take into account any practical considerations for making the home decent, the wishes of the occupants as to any necessary work being carried out, nor any planned action the owner may have for the property.

Table 1.2: Non-decent homes by tenure, 2006 and 2007						
	number (000s)		percentage (%)			
	2006	2007	2006	2007		
owner occupied	5,335	5,304	34.6	34.1		
private rented	1,223	1,244	46.8	45.4		
all private	6,558	6,548	36.3	35.8		
local authority	676	652	32.4	32.8		
RSL	465	486	25.2	25.5		
all social	1,142	1,138	29.0	29.2		
all tenures	7,700	7,686	35.0	34.6		
Base: all dwellings						

26. Taking the housing stock as a whole, the survey shows no (statistically significant) change in the number or proportion of non-decent homes between 2006 and 2007, Table 1.2. Of the four main tenure groups, only the private rented sector (the fastest growing sector between 2005 and 2007) shows any significant reduction in the proportion of homes that were non-decent (from 47% to 45%).⁷

27. The most frequent reason homes did not achieve the decent homes standard was the presence of one or more Category 1 hazards under the Housing Health and Safety Rating System (HHSRS), Table 1.3. Privately owned homes were almost twice as likely to have Category 1 hazards present compared to social housing. Social housing was just as likely to fail the thermal comfort standard as the HHSRS criterion. In 2007 some 86% of all non-decent homes did not meet either the HHSRS or the thermal comfort criteria.

28. The average (mean) cost to make homes decent was around £6,860 in 2007, but around half of non-decent homes could be treated for less than £2,550. Private rented sector accommodation was on average the most expensive to make decent (around £8,530) and social housing was the least (£4,630) and where half of all non-decent homes could be tackled for less than £1,850 (see Summary Statistics Tables SST3.2 to SST3.4).

⁷ See CLG Live Table 104 at: www.communities.gov.uk/documents/housing/xls/table-104.xls

Table 1.3. Homes failing decent nomes criteria by tenure, 2007							
	category 1 hazard (HHSRS)	thermal comfort	modern facilities	repair	all non- decent		
number (000s):							
owner occupied	3,458	2,281	395	999	5,304		
private rented	834	625	140	341	1,244		
all private	4,292	2,906	535	1,340	6,548		
local authority	292	265	125	151	652		
RSL	224	252	57	88	486		
all social	516	517	182	239	1,138		
all tenures	4,808	3,423	716	1,579	7,686		
percentage:							
owner occupied	22.2	14.7	2.5	6.4	34.1		
private rented	30.5	22.8	5.1	12.5	45.4		
all private	23.5	<i>15.9</i>	2.9	7.3	35.8		
local authority	14.7	13.3	6.3	7.6	32.8		
RSL	11.8	13.2	3.0	4.6	25.5		
all social	13.3	13.3	4.7	6.1	29.2		
all tenures	21.7	15.4	3.2	7.1	34.6		
Base: all dwellings Note: some dwellings fail on more than one criterion							

Table 1.3: Homes failing decent homes criteria by tenure, 2007

Housing Health and Safety Rating System (HHSRS)

29. Some 4.8 million homes (nearly 22% of the housing stock) had HHSRS Category 1 hazards present in 2007, Table 1.4. Some 2.5 million homes had at least one of the types of falls hazards present, and 2.2 million had an excess cold hazard. The presence of a Category 1 hazard does not necessarily imply that the current occupants themselves are at serious risk. This depends on their vulnerability to the hazard(s) present.⁸

30. There are marked differences in the incidence of hazards across the social and private housing sectors. Within the social sector a little over 0.5 million homes (13% of all social housing) had Category 1 hazards present compared with 4.5 million (24%) privately owned homes in 2007. Privately rented homes were most likely and those rented by Registered Social Landlords least likely to have Category 1 hazards present (30% compared to 12%).

31. The average (mean) cost to make these homes reasonably safe and healthy was around £3,850 in 2007, although half of these homes could be dealt with for less than £1,500 (see Summary Statistics Tables SST4.1 to SST4.3).

⁸ The HHSRS assessment of the seriousness of a hazard is based on the assumption of the person most vulnerable to that risk being present and not the actual occupant(s). More detailed information on the HHSRS is available at: www.communities.gov.uk/hhsrs

Table 1.4: Homes with Category	⁷ 1 hazards	present by	type and	tenure,
2006 and 2007				

	number (000s)		percentage (%)		
	2006	2007	2006	2007	
any hazard:					
owner occupied	3,452	3,458	22.4	22.2	
private rented	797	834	30.5	30.5	
all private	4,249	4,292	23.5	23.5	
local authority	297	292	14.2	14.7	
RSL	206	224	11.1	11.8	
all social	503	516	12.8	13.3	
all tenures	4,752	4,808	21.6	21.7	
excess cold:					
owner occupied	1,842	1,654	11.9	10.6	
private rented	438	416	16.8	15.2	
all private	2,280	2,070	12.6	11.3	
local authority	91	85	4.3	4.3	
RSL	60	70	3.2	3.7	
all social	150	155	3.8	4.0	
all tenures	2,430	2,225	11.1	10.0	
any falls:					
owner occupied	1,695	1,823	11.0	11.7	
private rented	376	416	14.4	15.2	
all private	2,070	2,240	11.5	12.2	
local authority	172	172	8.3	8.7	
RSL	109	118	5.9	6.2	
all social	282	290	7.2	7.5	
all tenures	2,352	2,530	10.7	11.4	
Base: all dwellings Notes: a) For EHCS estimates a Category 1 excess cold hazard is present in the home if its energy efficiency (SAP)					
b) Falls include Category 1 hazards arising	from falls on stair	s, falls on the leve	el and falls between	levels.	

32. There was no significant change in the overall number or proportion of homes with any Category 1 hazards between 2006 and 2007.

'Treatability' of non-decent homes

33. Making homes decent is not always straightforward. For some homes the necessary work may not be practically feasible or may be technically problematic. Some non-decent homes may simply not be cost effective to improve and others, although technically non-decent, may nevertheless be performing at a level that is acceptable in terms of what the standard is seeking to achieve. Taking such considerations into account, a 'treatment scale' has been developed. Details of the treatment scale are provided in Appendix 1.1A Decent Homes Treatment Scale: derivation of the scale and cavity wall 'fillability'.

34. Two thirds (67%) of all non-decent homes were straightforward to make decent in 2007, Table 1.5. The other 2.3 million non-decent homes, including around 400,000 from the social sector, were not straightforward. The biggest group of those classed as not straightforward were classed as 'difficult'. The majority of these were homes that required cavity wall insulation in order to meet the thermal comfort requirement but its installation was not straightforward for some reason (e.g. blocks of more than 4 storeys, homes with conservatories, mixed wall types).

Table 1.5: Non-decent homes by treatment category by tenure, 2007									
	private		social			all tenures			
	number (000s)	% of all	% of non- decent	number (000s)	% of all	% of non- decent	number (000s)	% of all	% of non- decent
decent	11,750	64.2	-	2,753	70.8	-	14,503	65.4	-
non-decent of which:	6,548	35.8	100.0	1,138	29.2	100.0	7,686	34.6	100.0
staightforward to treat	4,621	25.3	70.6	734	18.9	64.5	5,354	24.1	67.2
inappropriate to treat	63	0.3	1.0	90	2.3	7.9	153	0.7	2.0
difficult to treat	1,645	9.0	25.1	279	7.2	24.5	1,924	8.7	25.0
uneconimc to treat	42	0.2	0.6	12	0.3	1.1	54	0.2	0.7
not feasible to treat	178	1.0	2.7	23	0.6	2.0	201	0.9	2.6
all dwellings	18,298	100.0	-	3,891	100.0		22,189	100.0	-

Base: all dwellings

Notes: straightforward to treat is where the required treatment can be readily carried out; **inappropriate to treat** is 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** is where the required work is subject to technical issues/difficulties and/or the cost of the work is high; **uneconomic to treat** is where the cost of work, in relation to the value of the property, is high; **not feasible to treat** is 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.

Damp and mould

35. The proportion of homes with damp problems has reduced since 1996, Table 1.6. Some 9% of homes still had problems with damp or mould in at least one room in 2007, with over 1.9 million homes affected. Damp problems were more likely to be caused by condensation or penetrating damp than rising damp.

Table 1.6: Number and percentage	of homes with	damp problems in one	e or
more rooms, 1996-2007			

	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
2007	640	833	881	1,916
% 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
2007	2.9	3.8	4.0	8.6
Base: all dwellings				

36. Older homes were more likely to have problems with rising or penetrating damp arising from defects to the damp proof course, roof covering, flashings, gutters and downpipes. Serious problems of condensation and mould were less strongly related to dwelling age as they are caused by a combination of factors that result in moisture generated from living activities condensing on walls and windows. These include poor heating and thermal insulation, inadequate ventilation, overcrowding and occupant behaviour. Privately rented and local authority homes were much more likely to have problems with serious condensation and mould growth than homes in other tenures, Figure 1.9.



Disrepair

37. Some 56% of all homes had one or more faults to the exterior fabric of the property in 2007, the most common relating to the wall finish and windows. One third of the housing stock had faults to the internal fabric, the most common relating to ceilings. The amount of work required to tackle faults depends on whether, for example, only urgent work is carried out or additional considerations (such as undertaking preventative or early replacement work) are taken into account. Chapter 3 looks in detail at the different levels and types of disrepair in the housing stock. Focussing here on urgent work only, the average cost of repairs was £1,147 for the housing stock as whole, equating to a total repair bill of over £25 billion. However, some 46% of homes required no urgent work.

38. The expenditure required to tackle disrepair is affected by the amount of work required, building cost variations by tenure and region, and the size of the property. The survey standardises the latter two factors to provide comparable measures of the amount of work required, measured in pounds per square metre of floor area (£/m²).

39. Using this standardised disrepair measure, in 2007 the average amount of urgent disrepair was highest in the private rented sector (over £22/m²) and lowest in the owner occupied and RSL sectors (around £9/m²), with local authority housing between these tenures (£16/m²). However these differences are not simply a reflection of the age composition of each of the tenures. The higher level of disrepair in the private rented stock was more pronounced in the oldest (pre-1919) stock than for homes built since 1919, Figure 1.10.



Figure 1.10: Average standardised urgent repairs costs by dwelling age and tenure, 2007

Base: all dwellings

Note: Standardised urgent repair costs use common building costs across tenures and regions and normalise differences in dwelling size by calculating the amount of work per square meter of floor area. This enables like for like comparisons to be made across different sections of the housing stock. Repair costs are based on 2007 prices for this figure.

40. For the housing stock as a whole, standardised urgent repairs halved between 1996 and 2007, from an average of £17 to $\pm 9/m^2$ at 2001 prices. The largest reductions were evident in the private rented sector, with average costs falling by about £19/m², compared to approximately $\pm 7/m^2$ in other tenures, Figure 1.11.



41. The greater improvement of the private rented sector relative to other tenures over this period occurred primarily because of two related factors. Firstly because its expansion from 2.0 to over 2.7 million homes between 1996 and 2007 was driven by a disproportionate increase in newer homes: the proportion of the privately rented stock built before 1919 declined from 52% to 41%, while the proportion built since 1980 rose from 8% to 18%. Secondly, because more repair and other work appears to have been carried by on homes new to private renting, compared with those that had been let longer term.⁹

Energy performance

42. Chapter 2 looks in details at the energy performance of the housing stock, how this has improved and the potential for further improvement through installing relatively straight forward, cost effective measures. This section of the overview focuses on how the 2007 energy performance of the stock would be assessed through the Energy Performance Certificate.¹⁰ Further details by dwelling, area and household characteristics are provided in Summary Statistics Tables SST7.1 to SST7.4

- ⁹ The evidence on work carried out on newly let compared to long tern private rented properties is based on the three year period 2004 to 2007. This is set out in Chapter 3.
- ¹⁰ An example of the Energy Performance Certificate for a dwelling is provided at: http://www.communities.gov.uk/documents/planningandbuilding/pdf/319282.pdf

Current performance

43. The energy efficiency of homes in England improved from an average SAP rating of 42 in 1996 (equating to the lower end of the Energy Efficiency Rating or EER Band E) to 50 in 2007 (the upper end of the EER Band E), Figure 1.12.¹¹ Social sector homes, with an average SAP rating of 58 (equating to EER Band D) in 2007, were more energy efficient than those in the private sector (SAP rating of 48, equating to EER Band E), and the rate of energy efficiency improvement since 1996 has been greater in the social sector.



44. The gradual improvement in the energy efficiency of homes over time affects the proportion of homes in the highest and lowest EER bands, Table 1.7. In 2007 8% of homes were in the more efficient EER Bands A-C and a further 33% were in Band D, which compares with only 2% and 17% of homes respectively in 1996. The proportion of homes in the least efficient Bands F and G nearly halved over this period (from 36% to 19%).

¹¹ The Glossary provides a detailed description of the energy and carbon dioxide measures used in this report.

and 2007						
	number (000s)	percentage (%)			
	1996	2007	1996	2007		
Band A/B (81-100)	2	35	0.0	0.2		
Band C (69-80)	479	1,710	2.4	7.7		
Band D (55-68)	3,471	7,316	17.1	33.0		
Band E (39-54)	9,024	8,859	44.4	39.9		
Band F (21-38)	5,521	3,389	27.2	15.3		
Band G (1-20)	1,837	881	9.0	4.0		
Total	20,335	22,189	100.0	100.0		

Table 1.7: Energy Efficiency Bating (EER) Bands for the whole stock, 1996

Base: all dwellings

Note: EER Bands are based on SAP ratings which are shown in brackets. EER 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.

45. Although in 2007 both the owner occupied and private rented sector had an average SAP of 48 (EER Band E), the distribution of the bands between the two tenures differed, Figure 1.13. The private rented sector had a greater proportion of energy efficient homes in the more efficient EER Bands A to C compared to the owner occupied sector (10% and 4% respectively), but the private rented sector also had a greater proportion of energy inefficient homes in Band G. Some 27% of RSL homes were categorised as EER Bands A to C, along with 15% of the local authority housing stock, reflecting their higher average SAP ratings (59 and 56 respectively).



46. Under standardised assumptions regarding the level of occupancy and heating regimes, the carbon dioxide emissions associated with the of heating, lighting and ventilation requirements of an average home were 6.6 tonnes per year in 2007.¹² Social sector homes had substantially lower average carbon dioxide emissions (averaging 4.2 tonnes/year) than private sector homes (averaging 7.1 tonnes/year), Table 1.8. Social sector homes also had a much higher proportion of the stock emitting less than three tonnes per year of carbon dioxide in 2007 (26% compared to 5% in the private sector) and a lower proportion of the stock emitting ten or more tonnes per year of carbon dioxide (2% compared to 14% in the private sector). The lower level of carbon dioxide emissions in the social sector results in part from an advantageous profile regarding the age of its homes and the high proportion of flats and terraced accommodation, leading to typically smaller sized homes, but also from a greater uptake of heating and insulation improvements within the sector.

Table 1.8: Carbon dioxide emissions by tenure, 2007						
	average (tonnes/yr)	% less than 3 tonnes/year	% 10 or more tonnes/year			
owner occupied	7.3	3.8	15.1			
private rented	6.1	14.6	10.1			
local authority	4.4	20.2	1.9			
RSL	4.0	32.8	1.7			
all private	7.1	5.4	14.4			
all social	4.2	26.4	1.8			
all tenures	6.6	9.1	12.2			
Base: all dwellings						

47. Improvement in the energy performance of the housing stock since 1996 has been driven by increased use of gas fired central heating systems and condensing boilers (the latter now being a mandatory for new and replacement boilers), and more homes having their cavity walls and lofts (better) insulated. These trends are detailed in Chapter 2.

Energy Improvement

48. There are a number of further heating and insulation improvements that are relatively straightforward and cost-effective for occupants and landlords to carry out. Based on lower and higher cost recommendations covered by the Energy Performance Certificate, some 20.2 million homes (91% of the housing stock) would benefit from at least one of these improvement upgrades.

49. The improvement measure that would benefit the largest number of homes is a boiler upgrade to a condensing unit, recommended for 15.5 million (80% of) homes with a boiler driven heating system, followed by a loft insulation top-up in 8.9 million (45% of) homes with a loft. Some 7.8 million (40% of) homes could benefit from an upgrade to their central

¹² These standardised assumptions enable comparisons to be made between different sections of the housing stock and over time independently of variable ways in which different households consume energy ie they provide a measure of housing stock performance rather than actual energy consumption and associated emissions.

heating controls and 7.8 million from having their cavity walls insulated (the latter comprising 46% of all homes with cavity walls).

50. If the cost effective improvement measures considered in the analysis were fully implemented, the average energy efficiency (SAP) rating for each home would rise by exactly 10 points from a base level of 50 in 2007 to 60 and the carbon dioxide (CO_2) emissions would fall on average by 1.5 tonnes/year for every home in the housing stock (from 6.6 in 2007 to 5.1 tonnes/year). This could result in a total saving across the stock of 33 million tonnes of CO_2 (or 22% of total emissions accounted for by the housing stock under the standard occupancy and heating patterns used to assess stock performance).

51. The extent of improvement is more visible through the Energy Efficiency Rating (EER) Bands, Figure 1.14. Over the housing stock as a whole, the proportion of homes in the more efficient Bands A to C would more than double and the proportion in the least efficient Bands E to G would more than halve. The majority of RSL homes would fall into Bands A to C and the proportion of owner occupied homes in the most inefficient Bands E to G would fall from 65% to just 28% of the sector.


52. Across the stock as a whole the proportion of homes notionally emitting less than three tonnes/year of CO_2 would more than double (from 9% to 21% of the housing stock) while those emitting seven or more tonnes/year would almost halve (from 31% to 16%), Figure 1.15. Within the RSL stock, the tenure with the lowest average emissions, the majority of its homes would emit less than five tonnes/year (improving from 78% to 91% of its stock). Among the owner occupied stock the number of homes emitting less than five tonnes/year would double (from 29% to 58% of the sector).



53. As an approximation, the total cost of carrying out the improvement measures on the 20.2 million homes is around £30 billion. This equates to an average expenditure of approximately £1,500 for each of the 20.2 million homes that would benefit.

Disparities in housing conditions

54. This overview has addressed a wide range of measures of conditions and standards of performance of the housing stock. In order to summarise how poor conditions are distributed among households this section focuses on four measures: homes that are non-decent, in serious disrepair, have serious condensation and mould problems or constitute

'cold homes' (a Category 1 hazard under HHSRS excess cold).¹³ Details of how other measures covered in the overview are distributed among households are provided in the relevant Summary Statistics households tables at the end of this chapter.

55. A general indication of the distribution of poor housing conditions is provided through the level of deprivation of the local area, Figure 1.16. Serious disrepair, condensation, and mould are much more prevalent in the most deprived compared to more affluent areas, while a hazard under excess cold is more prevalent outside of the most deprived areas. The latter reflects in part the concentration of more energy efficient flats, terraced houses and social housing and the impact of energy improvement programmes targeted toward social housing the homes of other households in receipt of benefits.

56. Households living in the least deprived areas were least likely to be living in non-decent homes. However as a composite indicator of distinct problems that includes energy efficiency and disrepair along with other assessments, there is no simple trend for decent homes. In fact, households living in the most deprived areas were also likely to live in non-decent homes than those living in mid-ranking areas of deprivation.



¹³ Serious disrepair is based on the 10% of homes with the highest standardised comprehensive repair costs. 'Cold homes' are those with the lowest SAP ratings (equivalent to SAP 35 under the 2001 SAP methodology) used by the survey to model the presence of a Category 1 hazard on excess cold.

Tenure and vulnerability

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57. Current government policy is to target improvements towards vulnerable households whose choice is limited by income or disability in the private sector and to households renting from social landlords. In 2007, there were just under 6 million vulnerable households (in receipt of means-tested or disability related benefits or tax credits) living in England. Some 3.1 million vulnerable households were living in the private sector, where 1.2 million (39%) of them occupied non-decent accommodation, Table 1.9. Vulnerable private tenants were most likely to be living in non-decent accommodation (52% compared to 35% of vulnerable home owners). In addition there were 3.7 million households living in social housing, 1.0 million of whom (28%) lived in non-decent homes.

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| Table 1.9: Poor housing conditons by tenure and vulnerability, 2007 |               |      |                         |      |                                   |     |               |      |                   |  |  |  |
|---------------------------------------------------------------------|---------------|------|-------------------------|------|-----------------------------------|-----|---------------|------|-------------------|--|--|--|
|                                                                     | non-decent    |      | in serious<br>disrepair |      | serious<br>condensation/<br>mould |     | excess cold   |      | all<br>households |  |  |  |
|                                                                     | no.<br>(000s) | %    | no.<br>(000s)           | %    | no.<br>(000s)                     | %   | no.<br>(000s) | %    | (000s)            |  |  |  |
| Tenure and vulnerability:                                           |               |      |                         |      |                                   |     |               |      |                   |  |  |  |
| vulnerable owner occupied                                           | 851           | 35.1 | 317                     | 13.1 | 70                                | 2.9 | 269           | 11.1 | 2,427             |  |  |  |
| non-vulnerable owner<br>occupied                                    | 4,264         | 33.3 | 994                     | 7.8  | 309                               | 2.4 | 1,315         | 10.3 | 12,795            |  |  |  |
| vulnerable private rented                                           | 380           | 51.8 | 157                     | 21.4 | 72                                | 9.9 | 124           | 16.9 | 733               |  |  |  |
| non-vulnerable private<br>rented                                    | 754           | 43.4 | 222                     | 12.8 | 154                               | 8.9 | 254           | 14.6 | 1,739             |  |  |  |
| all vulnerable private sector                                       | 1,231         | 39.0 | 474                     | 15.0 | 143                               | 4.5 | 393           | 12.4 | 3,160             |  |  |  |
| all non vulnerable private<br>sector                                | 5,018         | 34.5 | 1,216                   | 8.4  | 463                               | 3.2 | 1,568         | 10.8 | 14,534            |  |  |  |
| all owner occupied                                                  | 5,115         | 33.6 | 1,311                   | 8.6  | 379                               | 2.5 | 1,584         | 10.4 | 15,221            |  |  |  |
| all private rented                                                  | 1,134         | 45.9 | 379                     | 15.3 | 227                               | 9.2 | 378           | 15.3 | 2,472             |  |  |  |
| all private sector                                                  | 6,249         | 35.3 | 1,690                   | 9.6  | 606                               | 3.4 | 1,961         | 11.1 | 17,694            |  |  |  |
| all social sector rented                                            | 1,037         | 28.1 | 284                     | 7.7  | 249                               | 6.8 | 137           | 3.7  | 3,686             |  |  |  |
| all households                                                      | 7,286         | 34.1 | 1,974                   | 9.2  | 855                               | 4.0 | 2,099         | 9.8  | 21,380            |  |  |  |

**Base: all households** 

Notes: Vulnerable households are any in receipt of means tested or disability related benefits/tax credits. See Glossary for detailed of vulnerable households and for the four indicators of housing conditions used in this table.

58. Vulnerable private sector households were also more likely to live in homes in serious disrepair (15%) and to live in 'cold homes' (12%) compared to non-vulnerable private households (8% and 11% respectively) and to social sector tenants (8% and 4%). Social sector tenants were least likely to live in cold homes but more likely than others to have serious condensation and mould problems (primarily as a result of living in smaller and/or more crowded accommodation), Figure 1.17.14

<sup>&</sup>lt;sup>14</sup> The focus here is on the condition and energy performance of the home, and does not cover issues of overcrowding and neighbourhood ('liveability') problems, both of which are more frequent in social housing than other tenures.



Figure 1.17: Housing conditions of 'vulnerable' private sector households and

59. The homes of social tenants and vulnerable private sector households improved more on average than those of more affluent households in terms of non-decency over the period 1996 to 2006, under the original definition of the Decent Homes standard, Figure 1.18. Between 1996 and 2006 under the original definition of decent homes, the proportion of social tenants and vulnerable private sector households living in non-decent homes both fell by 25 percentage points compared to a 15 percentage point fall for non-vulnerable private sector households. It is too early to establish any firm trend under the updated definition of decent homes from 2006. Cross Government programs (Decent Homes, Carbon Emissions Reductions Target and Warm Front) targeted at the condition and energy efficiency of the homes of social tenants and vulnerable private households are a key factor in narrowing disparities.



#### Ethnic and disadvantaged groups

60. While the overall picture is complex, disparities remain between poorer and other household groups, Table 1.10. Those in poverty, workless or from ethnic minorities were on average more likely to live homes in serious disrepair or with serious condensation and mould problems. Ethnic minority households were much less likely than average to live in homes that are difficult or expensive to heat but those of Asian and black identity were almost three times more likely than average to have serious condensation and mould problems in their accommodation. This is likely to be a consequence of larger households and more crowded conditions than average for Asian households and the much greater proportion of black households renting social housing, where these problems are more likely to occur.

# Table 1.10: Poor housing conditions by ethnic and disadvantaged groups, 2007

|                                 | non-decent |                                         | in sei<br>disre | in serious<br>disrepair                 |        | serious<br>condensation/<br>mould       |        | cold | all<br>households |
|---------------------------------|------------|-----------------------------------------|-----------------|-----------------------------------------|--------|-----------------------------------------|--------|------|-------------------|
|                                 | no.        |                                         | no.<br>(000s)   | %                                       | no.    |                                         | no.    |      | no. (000s)        |
| Ethnic and disadvantaged        | (0000)     | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | (0000)          | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | (0000) | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | (0000) | 70   |                   |
| all ethnic minorities           | 681        | 35.7                                    | 228             | 12.0                                    | 189    | 9.9                                     | 89     | 4.6  | 1.909             |
| white                           | 6,604      | 33.9                                    | 1,746           | 9.0                                     | 666    | 3.4                                     | 2,010  | 10.3 | 19,471            |
| black                           | 231        | 37.7                                    | 64              | 10.5                                    | 69     | 11.3                                    | 35     | 5.6  | 613               |
| Asian                           | 266        | 32.7                                    | 97              | 11.9                                    | 95     | 11.7                                    | 23     | 2.9  | 815               |
| other                           | 184        | 38.3                                    | 67              | 13.9                                    | 24     | 5.0                                     | 31     | 6.4  | 481               |
| in poverty                      | 1,379      | 37.6                                    | 513             | 14.0                                    | 243    | 6.6                                     | 360    | 9.8  | 3,665             |
| workless                        | 934        | 35.4                                    | 339             | 12.8                                    | 188    | 7.1                                     | 205    | 7.8  | 2,639             |
| long term illness or disability | 2,111 32.9 |                                         | 642             | 10.0                                    | 273    | 4.3                                     | 589    | 9.2  | 6,413             |
| all households                  | 7,286      | 34.1                                    | 1,974           | 9.2                                     | 855    | 4.0                                     | 2,099  | 9.8  | 21,380            |

Base: all households in each group

Notes: see Glossary for detailed definition of household groups and the four indicators of housing conditions used in this table.

#### Age and vulnerability

61. Children and older people tend to be more at risk from poor housing conditions in terms of their health (and safety). Vulnerable households that include children and older people are therefore of particular concern.

62. Households containing people aged sixty years or more (and those aged seventy five years or more) were more likely than average to live in homes that were expensive or difficult to heat, although those who are vulnerable were less likely to do so than their non-vulnerable peers, Table 1.11. However vulnerable older households were more likely than average, and in comparison with their non-vulnerable peers, to live in homes in serious disrepair. All older households were less likely than average to live in homes with serious condensation and mould problems.

|                                                                                                                           | non-decent                          |                                     | in serious<br>disrepair           |                                   | serious<br>condensation/<br>mould |                                 | excess cold                       |                                    | all<br>households                        |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|---------------------------------|-----------------------------------|------------------------------------|------------------------------------------|--|--|--|
|                                                                                                                           | no.<br>(000s)                       | %                                   | no.<br>(000s)                     | %                                 | no.<br>(000s)                     | %                               | no.<br>(000s)                     | %                                  | no.<br>(000s)                            |  |  |  |
| <b>Age and vulnerability:</b><br>all with children 0-15<br>children vulnerable<br>children non-vulnerable<br>lone parents | 1,924<br>598<br>1,326<br>473        | 31.4<br>32.9<br>30.8<br>32.3        | 585<br>225<br>360<br>161          | 9.6<br>12.4<br>8.4<br>11.0        | 334<br>140<br>194<br>103          | 5.4<br>7.7<br>4.5<br>7.1        | 463<br>112<br>351<br>101          | 7.6<br>6.2<br>8.2<br>6.9           | 6,122<br>1,817<br>4,305<br>1,462         |  |  |  |
| all with older people 60+<br>older vulnerable<br>older non-vulnerable                                                     | 2,760<br>1,026<br>1,734             | 34.8<br>34.5<br>34.9                | 709<br>334<br>375                 | 8.9<br>11.2<br>7.6                | 176<br>89<br>87                   | 2.2<br>3.0<br>1.7               | 945<br>298<br>647                 | 11.9<br>10.0<br>13.0               | 7,937<br>2,972<br>4,965                  |  |  |  |
| all with elderly 75+<br>elderly vulnerable<br>elderly non-vulnerable<br><b>all households</b>                             | 1,059<br>522<br>537<br><b>7,286</b> | 36.1<br>36.5<br>35.7<br><b>34.1</b> | 296<br>161<br>135<br><b>1,974</b> | 10.1<br>11.2<br>9.0<br><b>9.2</b> | 50<br>29<br>21<br><b>855</b>      | 1.7<br>2.0<br>1.4<br><b>4.0</b> | 377<br>170<br>207<br><b>2,099</b> | 12.8<br>11.9<br>13.7<br><b>9.8</b> | 2,936<br>1,431<br>1,505<br><b>21,380</b> |  |  |  |
| Base: all households in each group                                                                                        |                                     |                                     |                                   |                                   |                                   |                                 |                                   |                                    |                                          |  |  |  |

#### Table 1.11: Poor housing conditions by age and vulnerability, 2007

63. Poor housing conditions were much more likely for older households that had been resident in their current home for a long time, Figure 1.19. This is the case for both homeowners and those renting their accommodation. For homeowners this situation is likely to arise because of declining income and capacity to deal with ongoing maintenance, repairs and improvements required to maintain the home to a decent standard. For tenants it is likely to arise because the opportunity to carry out such work between lets has not arisen and because older tenants are more likely to refuse to have major works such as rewiring or installing central heating carried out.



64. While households with children were less likely to live in non-decent homes than average, they were a little more likely to experience serious condensation and mould problems, Table 1.11.

65. Vulnerable households with children were more likely to live in non-decent homes than their non-vulnerable counterparts, but particularly those privately renting their accommodation, Figure 1.20. Lone parents, around half of whom are vulnerable, were also more likely to live in non-decent homes. Households with children in the social sector were least likely to live in non-decent homes.



66. Vulnerable households with children and lone parents were more likely to live in homes in serious disrepair and with serious mould and condensation problems than their non-vulnerable counterparts. However they were actually less likely to live in homes that were expensive or difficult to heat than non-vulnerable households with children; largely because theses groups are more likely to live in social housing where homes are generally more energy efficient, Table 1.11.

# Summary Statistics Tables

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### Using the Summary Statistics Tables

The Summary Statistics tables provide breakdowns of key <u>descriptors</u> of the housing stock or <u>measures</u> 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 SST7.1 there are 15,560,000 dwellings in the owner occupied group. This figure acts as the denominator for all others statistics for this group: For example, in 2007 there were 28.4% (4,420,000) owner occupied homes with a Band F energy efficiency rating; the average (mean) energy efficiency rating for all owner occupied homes was 48.1, and the average (mean)  $CO_2$  emissions resulting from the heating and lighting requirements for each owner occupied home was 7.3 tonnes per year (totalling 112.9 million tonnes for the owner occupied stock as a whole).

These summary statistics tables are also available in spreadsheet form to facilitate the derivation of additional statistics.

www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousecondition/ ehcsdatasupporting/ehcsstandardtables/summarystatistics

#### Further notes on using the tables

- 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 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 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 and definitions used in the report.

Annual Report

| Homes                      |                                                                                             | Areas                      |    |                                                                                             |  |  |
|----------------------------|---------------------------------------------------------------------------------------------|----------------------------|----|---------------------------------------------------------------------------------------------|--|--|
| tenure                     |                                                                                             | area type:                 |    |                                                                                             |  |  |
| owner occupied             |                                                                                             | city centre                | 1  |                                                                                             |  |  |
| private rented             | all dwellings                                                                               | other urban centre         |    |                                                                                             |  |  |
| RSL                        |                                                                                             | suburban residential       |    |                                                                                             |  |  |
| all private                | categories sum to all dwellings. 'All private'                                              | rural residential          | 1  | all dwellings                                                                               |  |  |
| all social                 | includes owner occupied and private rented,<br>'all social' include local authority and RSL | village centre             |    |                                                                                             |  |  |
| vacant                     |                                                                                             | rural                      | J  |                                                                                             |  |  |
| occupied                   | all dwellings                                                                               | all city and urban centres |    | • estegarios sum to all dwollings, 'All rural'                                              |  |  |
| vacant                     |                                                                                             | suburban residential       |    | includes rural residential, village centre                                                  |  |  |
| ore-1919                   |                                                                                             | all rural                  |    | and other rural                                                                             |  |  |
| 1919-44                    |                                                                                             | deprived local areas:      |    |                                                                                             |  |  |
| 1945-64                    | all dwellings                                                                               | 10% most deprived          |    |                                                                                             |  |  |
| 1965-80                    |                                                                                             | 2nd                        | ٦. |                                                                                             |  |  |
| 1981-90                    |                                                                                             | 3rd                        |    |                                                                                             |  |  |
| dwelling type              |                                                                                             | 4th                        |    |                                                                                             |  |  |
| end terrace }              | categories sum to 'all terrace'                                                             | 5th                        |    | all dwellings (local areas are lower level super                                            |  |  |
| mid terrace                |                                                                                             | 6th                        |    | output areas, ranked and grouped into ten equal numbers of areas from the most to the least |  |  |
| medium/large terrace       | alternative categories that sum to<br>'all terrace'                                         | 746                        |    | deprived)                                                                                   |  |  |
| inioarani, large terrace j |                                                                                             | 7th                        |    |                                                                                             |  |  |
|                            |                                                                                             | 8th                        |    |                                                                                             |  |  |
|                            |                                                                                             | 9th                        | J  |                                                                                             |  |  |
|                            |                                                                                             | 10% least deprived         |    |                                                                                             |  |  |

| Homes (con                                                                                                                                            | t.)           |                                                                                                                                                                           | Areas (cont.)                                             |   |                                                                                                                                                                                                                                         |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| all terrace                                                                                                                                           | 1             |                                                                                                                                                                           | deprived districts:                                       |   |                                                                                                                                                                                                                                         |  |  |  |  |
| semi detached<br>detached<br>bungalow<br>converted flat<br>purpose built flat,                                                                        |               | all dwellings                                                                                                                                                             | deprived<br>other districts                               | } | <b>all dwellings</b> (the 91 deprived local authority<br>administrative areas are those in receipt of<br>Neighbourhood Renewal Funds either in 2001/06 or<br>2006/08)                                                                   |  |  |  |  |
| low rise                                                                                                                                              |               |                                                                                                                                                                           | regional groups                                           | : |                                                                                                                                                                                                                                         |  |  |  |  |
| all houses<br>all flats                                                                                                                               | <b>)</b><br>} | categories sum to all dwellings. 'All houses'<br>include all terraced, semi-detached,<br>detached and bungalows; 'all flats' include<br>converted and purpose built flats | northern regions<br>south east regions<br>rest of England | } | <b>all dwellings</b> ('northern' includes North West, North<br>East and Yorshire and the Humber; 'south east'<br>includes South East and London; 'rest of country'<br>includes Eastern, East Midlands, West Midlands and<br>South West) |  |  |  |  |
| <b>size</b><br>less than 50m <sup>2</sup><br>50 to 69m <sup>2</sup><br>70 to 89m <sup>2</sup><br>90 to 109m <sup>2</sup><br>110m <sup>2</sup> or more | <pre>}</pre>  | all dwellings                                                                                                                                                             |                                                           |   |                                                                                                                                                                                                                                         |  |  |  |  |

| Households                                             |                                                                                                                                             |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| composition                                            |                                                                                                                                             |
| couple under 60                                        |                                                                                                                                             |
| couple with children                                   |                                                                                                                                             |
| lone parent                                            | all households                                                                                                                              |
| multi-person household                                 |                                                                                                                                             |
| one person 60 or over                                  |                                                                                                                                             |
| age of oldest                                          |                                                                                                                                             |
| under 60 years                                         | all households                                                                                                                              |
| all over 60 years                                      |                                                                                                                                             |
| all over 75 years                                      | sub-group only                                                                                                                              |
| age of youngest                                        |                                                                                                                                             |
| under 5 years                                          | sub group only                                                                                                                              |
| under 16 years                                         | all households                                                                                                                              |
| income groups                                          |                                                                                                                                             |
| 1st quintile (lowest)                                  |                                                                                                                                             |
| 3rd quintile<br>4th quintile<br>5th quintile (highest) | <b>all households</b> (households are ranked on equivalised household income before housing costs and ordered into five equal sized groups) |
| living in poverty                                      |                                                                                                                                             |
| in poverty                                             | <b>all households</b> (households in poverty are those below 60% of median income before housing costs)                                     |
| workless households                                    |                                                                                                                                             |
| mot workless                                           | categories sum to all households where one or more persons is of working age                                                                |
| long term ill/disability                               |                                                                                                                                             |
| yes                                                    | all households                                                                                                                              |
| ethnicity of HRP                                       |                                                                                                                                             |
| white }                                                | all households                                                                                                                              |
| black<br>Asian<br>other                                | categories sum to all ethnic minority households                                                                                            |
| length of residence                                    |                                                                                                                                             |
| less than 1 year<br>1-4 years<br>5-9 years             | all households                                                                                                                              |
| 20-29 years<br>30 or more years                        |                                                                                                                                             |

| Summary Statistics Table SST2.0: Stock profile, 2007                                                                                                                                                                          |                                                                                          |                                                                          |                                                                                             |                                                                        |                                                                        |                                                                              |                                                                 |                                                                                                                                  |                                                                                             |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|--|--|
|                                                                                                                                                                                                                               |                                                                                          |                                                                          | tenu                                                                                        | ure                                                                    |                                                                        |                                                                              |                                                                 | total stock                                                                                                                      |                                                                                             |  |  |
|                                                                                                                                                                                                                               | owner<br>occupied                                                                        | private<br>rented                                                        | all private                                                                                 | local<br>authority                                                     | RSL                                                                    | all social                                                                   | floor area<br>(m²) <sup>1</sup>                                 | market<br>value (£)                                                                                                              | number of<br>dwellings<br>(000s)                                                            |  |  |
| <b>vacant</b><br>occupied<br>vacant                                                                                                                                                                                           | 15,206<br>354                                                                            | 2,357<br>381                                                             | 17,563<br>735                                                                               | 1,882<br>105                                                           | 1,796<br>108                                                           | 3,679<br>212                                                                 | 92<br>77                                                        | £212,899<br>£176,387                                                                                                             | 21,242<br>947                                                                               |  |  |
| <b>dwelling age</b><br>pre 1919<br>1919 to 1944<br>1945 to 1964<br>1965 to 1980<br>1981-1990<br>post 1990                                                                                                                     | 3,366<br>2,937<br>2,776<br>3,309<br>1,360<br>1,812                                       | 1,132<br>383<br>311<br>425<br>196<br>292                                 | 4,498<br>3,320<br>3,087<br>3,734<br>1,555<br>2,104                                          | 81<br>351<br>791<br>631<br>102<br>31                                   | 187<br>193<br>466<br>440<br>221<br>396                                 | 268<br>544<br>1,258<br>1,072<br>322<br>427                                   | 104<br>92<br>86<br>85<br>84<br>98                               | £245,626<br>£220,186<br>£184,639<br>£188,189<br>£202,137<br>£229,900                                                             | 4,766<br>3,864<br>4,345<br>4,806<br>1,878<br>2,531                                          |  |  |
| dwelling type<br>end terrace<br>mid terrace<br>small terraced house<br>medium/large terraced house<br>all terrace<br>semi-detached<br>detached house<br>bungalow<br>converted flat<br>pb flat, low rise<br>pb flat, high rise | 1,366<br>2,790<br>1,313<br>2,842<br>4,156<br>4,873<br>3,735<br>1,569<br>280<br>866<br>81 | 280<br>652<br>427<br>506<br>932<br>489<br>222<br>113<br>356<br>566<br>60 | 1,646<br>3,442<br>1,740<br>3,348<br>5,088<br>5,362<br>3,958<br>1,682<br>636<br>1,432<br>140 | 232<br>353<br>226<br>359<br>585<br>394<br>4<br>189<br>34<br>653<br>128 | 204<br>364<br>219<br>349<br>568<br>347<br>11<br>231<br>88<br>610<br>49 | 436<br>717<br>445<br>708<br>1,153<br>741<br>15<br>420<br>122<br>1,263<br>177 | 85<br>80<br>59<br>94<br>82<br>93<br>146<br>77<br>66<br>56<br>56 | £175,584<br>£177,133<br>£139,071<br>£196,838<br>£176,616<br>£195,950<br>£337,617<br>£192,976<br>£193,182<br>£157,915<br>£228,176 | 2,082<br>4,158<br>2,185<br>4,056<br>1,153<br>6,103<br>3,973<br>2,102<br>757<br>2,696<br>318 |  |  |
| <b>size</b><br>less than 50m <sup>2</sup><br>50 to 69m <sup>2</sup><br>70 to 89m <sup>2</sup><br>90 to 109m <sup>2</sup><br>110m <sup>2</sup> or more                                                                         | 741<br>3,037<br>4,530<br>2,753<br>4,499                                                  | 558<br>810<br>763<br>271<br>336                                          | 1,299<br>3,847<br>5,293<br>3,024<br>4,835                                                   | 520<br>709<br>617<br>101<br>39                                         | 559<br>651<br>530<br>112<br>52                                         | 1,079<br>1,361<br>1,147<br>213<br>91                                         | 41<br>61<br>80<br>99<br>160                                     | £129,093<br>£151,675<br>£173,233<br>£221,058<br>£357,547                                                                         | 2,378<br>5,208<br>6,440<br>3,237<br>4,926                                                   |  |  |

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|                            |                   |                   | ten         | ure                |          |            |                                 | total stock         |                                  |
|----------------------------|-------------------|-------------------|-------------|--------------------|----------|------------|---------------------------------|---------------------|----------------------------------|
|                            | owner<br>occupied | private<br>rented | all private | local<br>authority | RSL      | all social | floor area<br>(m²) <sup>1</sup> | market<br>value (£) | number of<br>dwellings<br>(000s) |
| type                       |                   |                   |             |                    |          |            |                                 |                     |                                  |
| city centre                | 271               | 200               | 471         | 84                 | 90       | 174        | 76                              | £225,472            | 645                              |
| other urban centre         | 2,332             | 852               | 3,185       | 507                | 469      | 975        | 80                              | £201,599            | 4,160                            |
| suburban residential       | 9,534             | 1,237             | 10,771      | 1,238              | 1,118    | 2,356      | 89                              | £196,546            | 13,126                           |
| rural residential          | 2,151             | 209               | 2,360       | 121                | 172      | 293        | 107                             | £248,911            | 2,652                            |
| village centre             | 710               | 91                | 801         | 31                 | 44       | 75         | 111                             | £240,118            | 876                              |
| rural                      | 562               | 149               | 711         | 5                  | 13       | 18         | 154                             | £349,540            | 729                              |
| deprived local areas       |                   |                   |             |                    |          |            |                                 |                     |                                  |
| most deprived 10%          | 754               | 280               | 1,034       | 583                | 465      | 1,048      | 71                              | £112,021            | 2,082                            |
| 2-5th                      | 5,554             | 1,230             | 6,784       | 1,135              | 1,009    | 2,144      | 82                              | £176,117            | 8,928                            |
| 6-9th                      | 7,470             | 1,033             | 8,503       | 251                | 391      | 641        | 101                             | £248,946            | 9,144                            |
| least deprived             | 1,782             | 196               | 1,977       | 19                 | 39       | 58         | 112                             | £298,497            | 2,035                            |
| deprived districts         |                   |                   |             |                    |          |            |                                 |                     |                                  |
| deprived                   | 5,836             | 1,277             | 7,113       | 1,258              | 941      | 2,200      | 84                              | £187,916            | 9,313                            |
| other districts            | 9,724             | 1,461             | 11,185      | 729                | 963      | 1,691      | 97                              | £228,283            | 12,876                           |
| regional group             |                   |                   |             |                    |          |            |                                 |                     |                                  |
| northern regions           | 4,525             | 664               | 5,189       | 609                | 634      | 1,243      | 90                              | £150,621            | 6,432                            |
| south east regions         | 4,492             | 1,075             | 5,567       | 644                | 580      | 1,224      | 91                              | £288,019            | 6,791                            |
| rest of England            | 6,543             | 999               | 7,542       | 734                | 690      | 1,424      | 94                              | £196,822            | 8,966                            |
| -                          |                   |                   |             |                    |          |            |                                 |                     |                                  |
| average floor area (m²)    | 101               | 77                | 98          | 65                 | 64       | 64         | 92                              | n/a                 | 22,189                           |
| average property value (£) | £233,055          | £196,412          | £227,572    | £130,979           | £139,220 | £135,011   | n/a                             | £211,341            | 22,189                           |
| moto:                      |                   |                   |             |                    |          |            |                                 |                     |                                  |

#### 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 SST2.1: Stock and amenities-secondary amenities and age/size of WC – homes |                 |         |                 |               |                         |                            |                            |                                  |      |        |  |  |
|-----------------------------------------------------------------------------------------------------|-----------------|---------|-----------------|---------------|-------------------------|----------------------------|----------------------------|----------------------------------|------|--------|--|--|
|                                                                                                     | 2nd WC Room     |         |                 | /shower<br>om |                         | age and size               | water meter<br>present*    | all dwellings in<br>group (000s) |      |        |  |  |
|                                                                                                     | not-<br>ensuite | ensuite | not-<br>ensuite | ensuite       | pre-1960<br>(13 litres) | 1960 to 1987<br>(9 litres) | 1988 to 1998<br>(7 litres) | 1999 and later<br>(6.5 litres)   |      |        |  |  |
| tenure                                                                                              |                 |         |                 |               |                         |                            |                            |                                  |      |        |  |  |
| owner occupied                                                                                      | 31.5            | 17.0    | 8.5             | 18.6          | 3.0                     | 28.3                       | 24.2                       | 44.4                             | 34.6 | 15,560 |  |  |
| private rented                                                                                      | 19.8            | 6.5     | 4.9             | 6.9           | 3.2                     | 41.3                       | 23.5                       | 31.9                             | 23.7 | 2,738  |  |  |
| local authority                                                                                     | 17.4            | 0.5     | 1.0             | 0.3           | 8.4                     | 50.3                       | 15.2                       | 26.1                             | 11.1 | 1,987  |  |  |
| RSL                                                                                                 | 20.2            | 0.8     | 1.4             | 0.4           | 4.0                     | 38.0                       | 23.3                       | 34.6                             | 28.8 | 1,904  |  |  |
| all private                                                                                         | 29.7            | 15.5    | 7.9             | 16.8          | 3.1                     | 30.3                       | 24.1                       | 42.6                             | 33.1 | 18,298 |  |  |
| all social                                                                                          | 18.7            | 0.6     | 1.2             | 0.3           | 6.3                     | 44.3                       | 19.2                       | 30.3                             | 19.7 | 3,891  |  |  |
| dwelling age                                                                                        |                 |         |                 |               |                         |                            |                            |                                  |      |        |  |  |
| pre-1919                                                                                            | 26.0            | 9.8     | 11.2            | 10.3          | 2.8                     | 35.1                       | 21.4                       | 40.6                             | 16.9 | 4,766  |  |  |
| 1919-1944                                                                                           | 32.0            | 7.5     | 9.0             | 7.7           | 4.0                     | 33.7                       | 22.8                       | 39.5                             | 18.5 | 3,864  |  |  |
| 1945-1964                                                                                           | 27.1            | 5.0     | 5.2             | 5.2           | 11.9                    | 30.6                       | 19.3                       | 38.2                             | 23.0 | 4,345  |  |  |
| 1965-1980                                                                                           | 31.7            | 7.6     | 5.8             | 8.0           | 0.0                     | 43.3                       | 17.9                       | 38.8                             | 29.9 | 4,806  |  |  |
| 1981-1990                                                                                           | 23.1            | 22.5    | 3.2             | 25.4          | 0.0                     | 46.6                       | 25.0                       | 28.4                             | 44.9 | 1,878  |  |  |
| post 1990                                                                                           | 22.0            | 43.1    | 1.9             | 48.0          | 0.0                     | 0.0                        | 42.8                       | 57.2                             | 80.1 | 2,531  |  |  |
| dwelling type                                                                                       |                 |         |                 |               |                         |                            |                            |                                  |      |        |  |  |
| end terrace                                                                                         | 33.5            | 6.0     | 6.2             | 6.6           | 2.9                     | 35.3                       | 22.9                       | 39.0                             | 22.2 | 2,082  |  |  |
| mid terrace                                                                                         | 25.5            | 4.3     | 4.7             | 4.3           | 3.1                     | 36.2                       | 21.9                       | 38.8                             | 17.5 | 4,158  |  |  |
| small terraced house                                                                                | 11.3            | 1.1     | 0.9             | 1.4           | 3.1                     | 38.7                       | 22.2                       | 36.0                             | 20.9 | 2,185  |  |  |
| medium/large terraced<br>house                                                                      | 37.3            | 6.9     | 7.5             | 7.0           | 3.0                     | 34.4                       | 22.2                       | 40.4                             | 18.1 | 4,056  |  |  |

| Summary Statistics Table SST2.1. Stock and amenities-secondary amenities and age/size of wc – nomes (cont.) |                 |         |                 |               |                         |                            |                            |                                |                         |                                  |  |  |
|-------------------------------------------------------------------------------------------------------------|-----------------|---------|-----------------|---------------|-------------------------|----------------------------|----------------------------|--------------------------------|-------------------------|----------------------------------|--|--|
|                                                                                                             | 2nd             | WC      | 2nd bath<br>Roc | /shower<br>om |                         | age and size               | of WC cistern              |                                | water meter<br>present* | all dwellings in<br>group (000s) |  |  |
|                                                                                                             | not-<br>ensuite | ensuite | not-<br>ensuite | ensuite       | pre-1960<br>(13 litres) | 1960 to 1987<br>(9 litres) | 1988 to 1998<br>(7 litres) | 1999 and later<br>(6.5 litres) |                         |                                  |  |  |
| all terrace                                                                                                 | 28.2            | 4.9     | 5.2             | 5.1           | 3.0                     | 35.9                       | 22.2                       | 38.9                           | 19.1                    | 6,241                            |  |  |
| semi-detached                                                                                               | 36.4            | 7.4     | 8.2             | 7.7           | 3.9                     | 29.1                       | 23.6                       | 43.4                           | 25.1                    | 6,103                            |  |  |
| detached house                                                                                              | 45.2            | 42.0    | 13.3            | 47.7          | 2.9                     | 24.5                       | 25.9                       | 46.7                           | 54.7                    | 3,973                            |  |  |
| bungalow                                                                                                    | 9.9             | 11.3    | 3.1             | 11.4          | 4.6                     | 33.8                       | 23.1                       | 38.4                           | 48.2                    | 2,102                            |  |  |
| converted flat                                                                                              | 8.1             | 4.2     | 5.0             | 4.0           | 1.6                     | 38.7                       | 19.9                       | 39.8                           | 21.9                    | 757                              |  |  |
| purpose built flat, low rise                                                                                | 3.8             | 4.6     | 1.3             | 4.2           | 4.3                     | 41.7                       | 22.6                       | 31.5                           | 25.4                    | 2,696                            |  |  |
| purpose built flat, high rise                                                                               | 4.9             | 11.5    | 0.3             | 12.5          | 11.0                    | 46.1                       | 16.7                       | 26.2                           | 11.3                    | 318                              |  |  |
| size                                                                                                        |                 |         |                 |               |                         |                            |                            |                                |                         |                                  |  |  |
| less than 50m <sup>2</sup>                                                                                  | 0.7             | 0.7     | 0.1             | 0.8           | 3.7                     | 44.3                       | 21.0                       | 31.0                           | 28.0                    | 2,378                            |  |  |
| 50 to 69m <sup>2</sup>                                                                                      | 8.8             | 2.2     | 0.9             | 2.6           | 4.3                     | 35.7                       | 23.0                       | 37.0                           | 26.5                    | 5,208                            |  |  |
| 70 to 89m <sup>2</sup>                                                                                      | 29.1            | 5.4     | 3.2             | 5.5           | 3.8                     | 33.1                       | 22.0                       | 41.1                           | 24.1                    | 6,440                            |  |  |
| 90 to 109m <sup>2</sup>                                                                                     | 44.0            | 14.9    | 9.0             | 16.0          | 3.3                     | 29.9                       | 24.5                       | 42.3                           | 33.0                    | 3,237                            |  |  |
| 110m <sup>2</sup> or more                                                                                   | 48.5            | 38.4    | 19.3            | 42.1          | 2.8                     | 25.4                       | 25.3                       | 46.4                           | 43.8                    | 4,926                            |  |  |
| all dwellings                                                                                               | 27.8            | 12.9    | 6.7             | 13.9          | 3.6                     | 32.7                       | 23.2                       | 40.4                           | 30.8                    | 22,189                           |  |  |
|                                                                                                             |                 |         |                 |               |                         |                            |                            |                                |                         |                                  |  |  |

### Summary Statistics Table SST2.1: Stock and amenities-secondary amenities and age/size of WC - homes (Cont.)

Base: all dwellings

\* water meter present is based on households not dwellings

| Summary Statistics Table SST2.2: Stock and amenities-secondary amenities and age/size of WC – area                       |                                                                              |                                                                          |                                                                    |                                                                          |                                                                    |                                                                              |                                                                      |                                                                                                                                                        |                                                                              |                                                                                        |  |
|--------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--|
|                                                                                                                          |                                                                              |                                                                          |                                                                    |                                                                          |                                                                    |                                                                              |                                                                      | percentag                                                                                                                                              | e of dwelli                                                                  | ngs within group                                                                       |  |
|                                                                                                                          | 2nd                                                                          | WC                                                                       | 2nd bath<br>Roc                                                    | /shower                                                                  |                                                                    | age and siz                                                                  | water<br>meter<br>present*                                           | all dwellings in<br>group (000s)                                                                                                                       |                                                                              |                                                                                        |  |
|                                                                                                                          | not-<br>ensuite                                                              | ensuite                                                                  | not-<br>ensuite                                                    | ensuite                                                                  | pre-1960<br>(13 litres)                                            | 1960 to 1987<br>(9 litres)                                                   | 1988 to 1998<br>(7 litres)                                           | 1999 and<br>later (6.5<br>litres)                                                                                                                      |                                                                              |                                                                                        |  |
| <b>type</b><br>city centre<br>other urban centre<br>suburban residential<br>rural residential<br>village centre<br>rural | 14.8<br>23.1<br>28.0<br>33.3<br>29.8<br>39.3                                 | 6.9<br>6.3<br>12.3<br>20.8<br>21.2<br>25.8                               | 4.3<br>6.3<br>5.8<br>8.8<br>10.2<br>16.3                           | 6.9<br>6.6<br>13.6<br>22.5<br>22.8<br>27.0                               | 3.0<br>3.7<br>3.5<br>3.1<br>4.5<br>6.2                             | 39.1<br>37.3<br>31.8<br>27.3<br>34.5<br>36.1                                 | 24.0<br>21.6<br>23.7<br>24.4<br>21.3<br>21.4                         | 33.9<br>37.4<br>41.0<br>45.2<br>39.7<br>36.3                                                                                                           | 20.6<br>19.8<br>31.3<br>43.3<br>37.0<br>39.9                                 | 645<br>4,160<br>13,126<br>2,652<br>876<br>729                                          |  |
| all city/urban centres<br>suburban<br>all rural areas                                                                    | 22.0<br>28.0<br>33.6                                                         | 6.4<br>12.3<br>21.7                                                      | 6.0<br>5.8<br>10.4                                                 | 6.7<br>13.6<br>23.3                                                      | 3.6<br>3.5<br>3.9                                                  | 37.5<br>31.8<br>30.3                                                         | 21.9<br>23.7<br>23.2                                                 | 37.0<br>41.0<br>42.6                                                                                                                                   | 19.9<br>31.3<br>41.4                                                         | 4,805<br>13,126<br>4,257                                                               |  |
| deprived local areas<br>most deprived 10%<br>2nd<br>3rd<br>4th<br>5th<br>6th<br>7th<br>8th<br>9th<br>least deprived      | 19.2<br>22.7<br>23.0<br>26.6<br>27.2<br>27.1<br>29.7<br>31.5<br>35.4<br>35.2 | 1.7<br>2.7<br>5.2<br>7.8<br>10.9<br>14.8<br>16.7<br>17.5<br>22.3<br>29.0 | 2.6<br>4.2<br>4.3<br>6.4<br>8.0<br>7.4<br>9.3<br>8.0<br>9.0<br>7.8 | 2.1<br>2.9<br>5.5<br>9.5<br>11.7<br>16.1<br>17.5<br>19.9<br>23.9<br>30.5 | 5.5<br>3.7<br>3.4<br>3.6<br>3.8<br>3.7<br>2.9<br>3.2<br>3.7<br>2.8 | 40.7<br>38.6<br>34.2<br>33.2<br>33.3<br>32.2<br>30.5<br>31.9<br>27.2<br>25.7 | 19.8<br>21.9<br>22.1<br>22.9<br>23.0<br>23.3<br>23.0<br>26.4<br>26.7 | <ul> <li>33.9</li> <li>35.8</li> <li>40.2</li> <li>40.3</li> <li>40.0</li> <li>41.1</li> <li>43.3</li> <li>41.8</li> <li>42.7</li> <li>44.9</li> </ul> | 14.7<br>18.9<br>21.8<br>26.4<br>29.1<br>31.9<br>36.5<br>37.5<br>43.8<br>46.1 | 2,082<br>2,231<br>2,264<br>2,209<br>2,225<br>2,241<br>2,257<br>2,354<br>2,293<br>2,035 |  |
| deprived districts<br>deprived<br>other district                                                                         | 23.4<br>30.9                                                                 | 7.7<br>16.6                                                              | 5.5<br>7.6                                                         | 9.1<br>17.4                                                              | 3.7<br>3.6                                                         | 34.0<br>31.8                                                                 | 22.9<br>23.4                                                         | 39.4<br>41.2                                                                                                                                           | 21.3<br>37.6                                                                 | 9,313<br>12,876                                                                        |  |

# Summary Statistics Table SST2.2: Stock and amenities-secondary amenities and age/size of WC – area (Cont.) percentage of dwellings within group

|                                                 | 2nd WC Room     |             |                 |         | age and siz             | water<br>meter<br>present* | All dwellings in<br>group (000s) |                                |      |        |
|-------------------------------------------------|-----------------|-------------|-----------------|---------|-------------------------|----------------------------|----------------------------------|--------------------------------|------|--------|
|                                                 | not-<br>ensuite | ensuite     | not-<br>ensuite | ensuite | pre-1960<br>(13 litres) | 1960 to 1987<br>(9 litres) | 1988 to 1998<br>(7 litres)       | 1999 and later<br>(6.5 litres) |      |        |
| regional group                                  |                 |             |                 |         |                         |                            |                                  |                                |      |        |
| northern regions                                | 22.0            | 10.1        | 5.8             | 11.2    | 3.7                     | 31.7                       | 23.5                             | 41.0                           | 25.8 | 6,432  |
| south east regions                              | 29.3            | 12.6        | 7.7             | 13.2    | 3.8                     | 33.4                       | 23.2                             | 39.6                           | 26.2 | 6,791  |
| rest of England                                 | 30.8            | 15.0        | 6.7             | 16.5    | 3.4                     | 33.0                       | 23.0                             | 40.6                           | 37.9 | 8,966  |
| all dwellings                                   | 27.8            | 12.9        | 6.7             | 13.9    | 3.6                     | 32.7                       | 23.2                             | 40.4                           | 30.8 | 22,189 |
| Base: all dwellings * water meter present is ba | ased on hou     | seholds not | t dwellings     |         |                         |                            |                                  |                                |      |        |

| Summary Statistics Table SST2.3: Stock and amenities-secondary amenities and age/size of WC – households <i>percentage of households within group</i>                                                                                  |                                                                      |                                                                  |                                                             |                                                                   |                                                             |                                                                      |                                                                      |                                                                      |                                                                      |                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                        | 2nd                                                                  | WC                                                               | 2nd bath<br>roo                                             | /shower                                                           |                                                             | age and siz                                                          | e of WC cistern                                                      |                                                                      | water<br>meter<br>present                                            | all<br>households<br>in group<br>(000s)                                        |
|                                                                                                                                                                                                                                        | not-<br>ensuite                                                      | ensuite                                                          | not-<br>ensuite                                             | ensuite                                                           | pre-1960<br>(13 litres)                                     | 1960 to 1987<br>(9 litres)                                           | 1988 to 1998<br>(7 litres)                                           | 1999 and later<br>(6.5 litres)                                       |                                                                      |                                                                                |
| household composition<br>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<br>age of oldest<br>under 60 years<br>all over 60 years | 28.5<br>33.5<br>32.5<br>23.6<br>33.4<br>15.3<br>22.5<br>26.9<br>29.8 | 14.6<br>16.3<br>21.1<br>5.6<br>9.6<br>6.3<br>4.7<br>14.2<br>11.1 | 6.9<br>8.7<br>8.3<br>2.6<br>9.1<br>4.4<br>4.0<br>6.4<br>7.2 | 16.2<br>17.1<br>23.3<br>5.2<br>10.6<br>7.1<br>4.9<br>15.7<br>11.6 | 1.9<br>4.8<br>1.9<br>2.7<br>4.1<br>2.8<br>7.4<br>2.3<br>5.7 | 26.3<br>33.9<br>24.4<br>34.8<br>38.3<br>35.8<br>47.0<br>29.0<br>39.1 | 24.2<br>23.6<br>25.5<br>22.9<br>22.6<br>23.7<br>18.9<br>24.2<br>22.0 | 47.6<br>37.7<br>48.3<br>39.6<br>35.0<br>37.6<br>26.7<br>44.6<br>33.3 | 27.3<br>38.5<br>28.1<br>18.7<br>20.7<br>30.8<br>40.9<br>26.9<br>37.4 | 4,007<br>3,754<br>5,050<br>1,462<br>1,527<br>2,413<br>3,167<br>13,443<br>7,937 |
| all over 75 years<br>age of youngest<br>under 5 years<br>under 16 years<br>16 years or more                                                                                                                                            | 27.6<br>30.6<br>26.9                                                 | 8.6<br>14.2<br>16.9<br>11.5                                      | 5.2<br>5.8<br>6.9<br>6.7                                    | 8.4<br>15.9<br>18.5<br>12.5                                       | 8.3<br>1.5<br>1.9<br>4.2                                    | 44.9<br>27.5<br>26.9<br>35.1                                         | 20.2<br>26.5<br>25.1<br>22.7                                         | 26.7<br>44.4<br>46.1<br>38.1                                         | 40.1<br>26.9<br>26.0<br>32.8                                         | 2,936<br>2,548<br>6,122<br>15,258                                              |
| <b>income groups</b><br>1st quintile (lowest)<br>2nd quintile<br>3rd quintile<br>4th quintile<br>5th quintile (highest)                                                                                                                | 23.7<br>24.0<br>26.7<br>31.1<br>34.4                                 | 6.0<br>6.2<br>10.9<br>15.3<br>26.9                               | 4.6<br>4.5<br>5.7<br>7.5<br>11.1                            | 6.4<br>6.9<br>11.2<br>17.0<br>29.6                                | 5.0<br>4.6<br>3.4<br>2.4<br>2.2                             | 42.7<br>36.4<br>32.3<br>29.3<br>22.9                                 | 21.2<br>22.1<br>23.4<br>24.9<br>25.1                                 | 31.1<br>36.8<br>40.9<br>43.4<br>49.7                                 | 27.1<br>28.3<br>30.5<br>33.4<br>34.8                                 | 4,272<br>4,406<br>4,217<br>4,152<br>4,334                                      |
| <b>living in poverty</b><br>in poverty<br>not in poverty                                                                                                                                                                               | 23.7<br>28.9                                                         | 6.4<br>14.4                                                      | 4.7<br>7.1                                                  | 6.7<br>15.7                                                       | 5.2<br>3.2                                                  | 43.0<br>30.6                                                         | 20.6<br>23.9                                                         | 31.2<br>42.3                                                         | 27.4<br>31.5                                                         | 3,665<br>17,715                                                                |

| Summary Statistics Table SST2.3: Stock and amen | ties-secondary amenities and age/size of WC – households (Cont.) |
|-------------------------------------------------|------------------------------------------------------------------|
|                                                 | percentage of households within group                            |

|                          | 2nd             | WC      | 2nd bath<br>roc | /shower |                         | age and size               | e of WC cistern            |                                | water<br>meter<br>present | all<br>households<br>in group<br>(000s) |
|--------------------------|-----------------|---------|-----------------|---------|-------------------------|----------------------------|----------------------------|--------------------------------|---------------------------|-----------------------------------------|
|                          | not-<br>ensuite | ensuite | not-<br>ensuite | ensuite | pre-1960<br>(13 litres) | 1960 to 1987<br>(9 litres) | 1988 to 1998<br>(7 litres) | 1999 and later<br>(6.5 litres) |                           |                                         |
| workless households      |                 |         |                 |         |                         |                            |                            |                                |                           |                                         |
| workless                 | 23.2            | 6.9     | 5.0             | 7.5     | 3.5                     | 40.4                       | 22.5                       | 33.5                           | 25.3                      | 2,639                                   |
| not workless             | 29.1            | 15.8    | 7.4             | 17.3    | 2.2                     | 27.7                       | 24.6                       | 45.6                           | 27.9                      | 13,466                                  |
| long term ill/disability |                 |         |                 |         |                         |                            |                            |                                |                           |                                         |
| yes                      | 27.4            | 8.6     | 5.5             | 9.2     | 4.7                     | 37.3                       | 22.1                       | 35.9                           | 30.1                      | 6,413                                   |
| no                       | 28.2            | 15.0    | 7.2             | 16.3    | 3.0                     | 30.8                       | 23.9                       | 42.3                           | 31.1                      | 14,967                                  |
| ethnicity of HRP         |                 |         |                 |         |                         |                            |                            |                                |                           |                                         |
| white                    | 27.9            | 13.6    | 6.7             | 14.7    | 3.6                     | 32.2                       | 23.5                       | 40.7                           | 31.8                      | 19,471                                  |
| black                    | 24.4            | 3.0     | 3.3             | 4.0     | 3.8                     | 40.2                       | 19.2                       | 36.9                           | 14.7                      | 613                                     |
| Asian                    | 34.8            | 8.9     | 10.4            | 11.5    | 2.1                     | 36.2                       | 23.3                       | 38.4                           | 22.7                      | 815                                     |
| other                    | 24.8            | 11.1    | 5.4             | 10.6    | 2.3                     | 38.4                       | 23.1                       | 36.2                           | 24.1                      | 481                                     |
| all minority             | 28.9            | 7.5     | 6.8             | 8.9     | 2.7                     | 38.0                       | 21.9                       | 37.4                           | 20.5                      | 1,909                                   |
| length of residence      |                 |         |                 |         |                         |                            |                            |                                |                           |                                         |
| less than 1 year         | 21.6            | 10.7    | 5.5             | 12.7    | 2.0                     | 28.7                       | 27.4                       | 41.8                           | 32.2                      | 2,135                                   |
| 1-4 years                | 23.8            | 14.9    | 5.3             | 15.9    | 1.8                     | 29.1                       | 24.3                       | 44.9                           | 35.3                      | 4,365                                   |
| 5-9 years                | 24.5            | 18.4    | 5.7             | 20.0    | 2.2                     | 27.6                       | 21.1                       | 49.1                           | 35.2                      | 4,452                                   |
| 10-19 years              | 29.1            | 15.2    | 8.6             | 16.8    | 3.3                     | 30.3                       | 27.5                       | 38.9                           | 28.5                      | 4,409                                   |
| 20-29 years              | 33.0            | 10.2    | 8.8             | 11.1    | 3.2                     | 41.8                       | 21.6                       | 33.5                           | 22.6                      | 2,983                                   |
| 30+ years                | 37.0            | 3.8     | 6.4             | 3.6     | 9.7                     | 43.1                       | 18.2                       | 29.0                           | 28.4                      | 3,035                                   |
| all households           | 28.0            | 13.0    | 6.7             | 14.2    | 3.5                     | 32.7                       | 23.4                       | 40.4                           | 30.8                      | 21,380                                  |
| Base: all households     |                 |         |                 |         |                         |                            |                            |                                |                           |                                         |

| Summary Statistics Table SST2.4: Stock and amenities-parking provision and smoke alarms – homes |                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                      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| 19.8                                                                                            | 19.1                                                                                                                            | 23.0                                                                                                                                                                                                                                                                                                                                                                                        | 34.0                                                                                                                                                                                                                                                                                                                                                                                                 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| 41.4                                                                                            | 30.7                                                                                                                            | 14.5                                                                                                                                                                                                                                                                                                                                                                                        | 12.4                                                                                                                                                                                                                                                                                                                                                                                                 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| 40.6                                                                                            | 25.1                                                                                                                            | 19.8                                                                                                                                                                                                                                                                                                                                                                                        | 13.2                                                                                                                                                                                                                                                                                                                                                                                                 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| 56.7                                                                                            | 14.9                                                                                                                            | 16.2                                                                                                                                                                                                                                                                                                                                                                                        | 10.8                                                                                                                                                                                                                                                                                                                                                                                                 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| 49.1                                                                                            | 29.8                                                                                                                            | 14.3                                                                                                                                                                                                                                                                                                                                                                                        | 6.1                                                                                                                                                                                                                                                                                                                                                                                                  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| 53.3                                                                                            | 35.1                                                                                                                            | 7.6                                                                                                                                                                                                                                                                                                                                                                                         | 3.1                                                                                                                                                                                                                                                                                                                                                                                                  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                                    | 2,531                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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|                                                                                                 | able SST<br>garage<br>54.6<br>21.2<br>5.7<br>6.0<br>49.6<br>5.9<br>43.0<br>17.4<br>19.8<br>41.4<br>40.6<br>56.7<br>49.1<br>53.3 | able SST2.4: Sto         other off road parage         54.6       23.6         21.2       25.2         5.7       20.6         6.0       30.4         49.6       23.9         5.9       25.4         43.0       24.1         17.4       24.9         19.8       19.1         41.4       30.7         40.6       25.1         56.7       14.9         49.1       29.8         53.3       35.1 | Able SST2.4: Stock and an arking provention of the off road parking         adequate street parking           garage         0101           54.6         23.6           57         20.6           5.7         20.6           5.7         20.6           5.7         20.6           5.7         20.6           5.7         20.6           5.7         20.6           5.9         25.4           49.6         23.9           5.9         25.4           40.1         38.7           43.0         24.1           16.4         24.9           17.4         24.9           43.0         24.1           16.4         30.7           43.0         24.1           16.4         30.7           19.8         19.1           40.6         25.1           40.6         25.1           40.6         25.1           40.1         20.8           40.1         20.8           40.1         20.8           40.1         20.8           40.1         20.8           40.1         20.8 | street         street         inadequate           other         adequate         inadequate           garage         23.6         10.1         10.7           21.2         25.2         22.6         26.8           5.7         20.6         41.5         29.0           6.0         30.4         38.7         21.4           49.6         23.9         12.0         13.1           5.9         25.4         40.1         25.3           43.0         24.1         16.4         14.8           17.4         24.9         28.7         24.8           19.8         19.1         23.0         34.0           41.4         30.7         14.5         12.4           40.6         25.1         19.8         13.2           56.7         14.9         16.2         10.8           49.1         29.8         14.3         6.1           53.3         35.1         7.6         3.1 | Stock and amenities-parking provision           other off road parking parking         inadequate inadequate street parking parking         no parking provision           54.6         23.6         10.1         10.7         1.0           21.2         25.2         22.6         26.8         4.2           5.7         20.6         41.5         29.0         3.3           6.0         30.4         38.7         21.4         3.4           49.6         23.9         12.0         13.1         1.5           5.9         25.4         40.1         25.3         3.4           43.0         24.1         16.4         14.8         1.7           17.4         24.9         28.7         24.8         4.1           19.8         19.1         23.0         34.0         4.2           56.7         14.9         16.2         10.8         1.3           40.6         25.1         19.8         13.2         1.2           56.7         14.9         16.2         10.8         1.3           49.1         29.8         14.3         6.1         0.7           53.3         35.1         7.6         3.1         1.0 | parking provision         street         no parking         street         street <t< td=""><td>able SST2.4: Stock and amenities-parking provision and smoke           parking provision         smoke alarms           other         adequate         inadequate         no parking         mains         battery           garage         parking         parking         parking         powered         0019           54.6         23.6         10.1         10.7         1.0         15.8         69.6           21.2         25.2         22.6         26.8         4.2         15.8         63.3           5.7         20.6         41.5         29.0         3.3         34.2         52.5           6.0         30.4         38.7         21.4         3.4         45.3         45.1           49.6         23.9         12.0         13.1         1.5         15.8         68.8           5.9         25.4         40.1         25.3         3.4         39.6         48.8           43.0         24.1         16.4         14.8         1.7         19.9         65.3           17.4         24.9         28.7         24.8         4.1         N/A         N/A           19.8         19.1         23.0         34.0         4.2</td><td>able SST2.4: Stock and amenities-parking provision and smoke alarms – logerentage           parking provision         smoke alarms – logerentage           smoke alarms           street off road off road street parking parking parking provision         mains battery ono smoke alarms           54.6         23.6         10.1         10.7         1.0         15.8         69.6         14.6           21.2         25.2         22.6         26.8         4.2         15.8         63.3         20.9           5.7         20.6         41.5         29.0         3.3         34.2         52.5         13.4           6.0         30.4         38.7         21.4         3.4         45.3         45.1         9.7           49.6         23.9         12.0         13.1         1.5         15.8         68.8         15.5           5.9         25.4         40.1         25.3         3.4         39.6         48.8         11.6           43.0         24.1         16.4         14.8         1.7         19.9         65.3         14.8           17.4         24.9         28.7         24.8         4.1         N/A         N/A         N/A</td><td>able SST2.4: Stock and amenities-parking provision and smoke alarms - homes           parking provision         smoke alarms+         percentage of dwelling           smoke alarms+         smoke alarms+         with a private plot           offroad street inadequate offroad street parking provision         smoke alarms+         with a private plot           54.6         23.6         10.1         10.7         1.0         15.8         69.6         14.6         94.6           21.2         25.2         22.6         26.8         4.2         15.8         63.3         20.9         72.2           5.7         20.6         41.5         29.0         3.3         34.2         52.5         13.4         67.3           6.0         30.4         38.7         21.4         3.4         45.3         45.1         9.7         67.1           49.6         23.9         12.0         13.1         1.5         15.8         68.8         15.5         91.3           43.0         24.1         16.4         14.8         1.7         19.9         65.3         14.8         87.8           17.4         24.9         28.7         24.8         4.1&lt;</td></t<> | able SST2.4: Stock and amenities-parking provision and smoke           parking provision         smoke alarms           other         adequate         inadequate         no parking         mains         battery           garage         parking         parking         parking         powered         0019           54.6         23.6         10.1         10.7         1.0         15.8         69.6           21.2         25.2         22.6         26.8         4.2         15.8         63.3           5.7         20.6         41.5         29.0         3.3         34.2         52.5           6.0         30.4         38.7         21.4         3.4         45.3         45.1           49.6         23.9         12.0         13.1         1.5         15.8         68.8           5.9         25.4         40.1         25.3         3.4         39.6         48.8           43.0         24.1         16.4         14.8         1.7         19.9         65.3           17.4         24.9         28.7         24.8         4.1         N/A         N/A           19.8         19.1         23.0         34.0         4.2 | able SST2.4: Stock and amenities-parking provision and smoke alarms – logerentage           parking provision         smoke alarms – logerentage           smoke alarms           street off road off road street parking parking parking provision         mains battery ono smoke alarms           54.6         23.6         10.1         10.7         1.0         15.8         69.6         14.6           21.2         25.2         22.6         26.8         4.2         15.8         63.3         20.9           5.7         20.6         41.5         29.0         3.3         34.2         52.5         13.4           6.0         30.4         38.7         21.4         3.4         45.3         45.1         9.7           49.6         23.9         12.0         13.1         1.5         15.8         68.8         15.5           5.9         25.4         40.1         25.3         3.4         39.6         48.8         11.6           43.0         24.1         16.4         14.8         1.7         19.9         65.3         14.8           17.4         24.9         28.7         24.8         4.1         N/A         N/A         N/A | able SST2.4: Stock and amenities-parking provision and smoke alarms - homes           parking provision         smoke alarms+         percentage of dwelling           smoke alarms+         smoke alarms+         with a private plot           offroad street inadequate offroad street parking provision         smoke alarms+         with a private plot           54.6         23.6         10.1         10.7         1.0         15.8         69.6         14.6         94.6           21.2         25.2         22.6         26.8         4.2         15.8         63.3         20.9         72.2           5.7         20.6         41.5         29.0         3.3         34.2         52.5         13.4         67.3           6.0         30.4         38.7         21.4         3.4         45.3         45.1         9.7         67.1           49.6         23.9         12.0         13.1         1.5         15.8         68.8         15.5         91.3           43.0         24.1         16.4         14.8         1.7         19.9         65.3         14.8         87.8           17.4         24.9         28.7         24.8         4.1< |  |

# Summary Statistics Table SST2.4: Stock and amenities-parking provision and smoke alarms – homes (Cont.) percentage of dwellings within group

|                                |        |                              | parking prov                  | vision                          |                         | sn               | noke alarms     | *                 |                           | in group<br>(000s) |
|--------------------------------|--------|------------------------------|-------------------------------|---------------------------------|-------------------------|------------------|-----------------|-------------------|---------------------------|--------------------|
|                                | garage | other<br>off road<br>parking | adequate<br>street<br>parking | inadequate<br>street<br>parking | no parking<br>provision | mains<br>powered | battery<br>only | no smoke<br>alarm | with a<br>private<br>plot |                    |
| dwelling type                  |        |                              |                               |                                 |                         |                  |                 |                   |                           |                    |
| end terrace                    | 27.1   | 31.0                         | 21.4                          | 18.8                            | 1.8                     | 18.6             | 66.8            | 14.6              | 98.9                      | 2,082              |
| mid terrace                    | 17.1   | 22.9                         | 27.9                          | 29.4                            | 2.7                     | 15.6             | 67.4            | 17.0              | 99.0                      | 4,158              |
| small terraced house           | 16.3   | 30.1                         | 25.9                          | 25.6                            | 2.1                     | 16.3             | 67.3            | 16.4              | 98.4                      | 2,185              |
| medium/large terraced<br>house | 22.6   | 23.1                         | 25.7                          | 26.0                            | 2.5                     | 16.8             | 67.1            | 16.1              | 99.2                      | 4,056              |
| all terrace                    | 20.4   | 25.6                         | 25.8                          | 25.9                            | 2.4                     | 16.6             | 67.2            | 16.2              | 98.9                      | 6,241              |
| semi detached                  | 48.7   | 34.6                         | 9.2                           | 6.8                             | 0.7                     | 15.3             | 72.4            | 12.2              | 99.9                      | 6,103              |
| detached                       | 86.3   | 12.1                         | 0.9                           | 0.6                             | 0.2                     | 26.1             | 63.6            | 10.3              | 99.9                      | 3,973              |
| bungalow                       | 60.7   | 21.0                         | 12.6                          | 4.9                             | 0.9                     | 19.0             | 65.5            | 15.5              | 97.2                      | 2,102              |
| converted flat                 | 4.0    | 20.9                         | 24.0                          | 44.2                            | 6.9                     | 21.4             | 50.8            | 27.9              | 49.7                      | 757                |
| purpose built flat, low rise   | 10.9   | 19.4                         | 37.8                          | 28.0                            | 3.9                     | 27.9             | 53.2            | 18.9              | 23.8                      | 2,696              |
| purpose built flat, high rise  | 8.4    | 13.8                         | 27.3                          | 44.0                            | 6.5                     | 30.0             | 45.1            | 24.9              | 3.2                       | 318                |
| size                           |        |                              |                               |                                 |                         |                  |                 |                   |                           |                    |
| less than 50m <sup>2</sup>     | 7.4    | 25.7                         | 34.2                          | 28.9                            | 3.9                     | 27.2             | 53.2            | 19.6              | 42.2                      | 2,378              |
| 50 to 69m <sup>2</sup>         | 25.0   | 28.2                         | 23.4                          | 20.7                            | 2.6                     | 19.6             | 63.9            | 16.5              | 81.5                      | 5,208              |
| 70 to 89m <sup>2</sup>         | 37.6   | 27.1                         | 18.1                          | 15.8                            | 1.4                     | 15.8             | 70.2            | 14.1              | 94.9                      | 6,440              |
| 90 to 109m <sup>2</sup>        | 55.6   | 22.4                         | 10.5                          | 10.2                            | 1.3                     | 16.4             | 70.2            | 13.4              | 97.0                      | 3,237              |
| 110m <sup>2</sup> or more      | 73.1   | 16.3                         | 4.4                           | 5.5                             | 0.7                     | 24.6             | 62.8            | 12.6              | 97.8                      | 4,926              |
| all dwellings                  | 41.9   | 24.1                         | 16.9                          | 15.3                            | 1.8                     | 19.9             | 65.3            | 14.8              | 87.0                      | 22,189             |
| Base: all dwellings            |        |                              |                               |                                 |                         |                  |                 |                   |                           |                    |

smoke alarms are based on households not dwellings

all dwellings

| Summary Statistics Table SST2.5: Stock and amenities-parking provision and smoke alarms – area<br>percentage of dwellings within group |        |                              |                               |                                 |                         |                  |                          |                   |                     |                                     |
|----------------------------------------------------------------------------------------------------------------------------------------|--------|------------------------------|-------------------------------|---------------------------------|-------------------------|------------------|--------------------------|-------------------|---------------------|-------------------------------------|
|                                                                                                                                        |        | ра                           | rking provisi                 | on                              |                         | sn               | noke alarms <sup>*</sup> | ÷                 |                     |                                     |
|                                                                                                                                        | garage | other<br>off road<br>parking | adequate<br>street<br>parking | inadequate<br>street<br>parking | no parking<br>provision | mains<br>powered | battery<br>only          | no smoke<br>alarm | with a private plot | all dwellings<br>in group<br>(000s) |
| type                                                                                                                                   |        |                              |                               |                                 |                         |                  |                          |                   |                     |                                     |
| city centre                                                                                                                            | 9.8    | 19.6                         | 14.8                          | 39.9                            | 16.0                    | 22.2             | 51.5                     | 26.3              | 48.2                | 645                                 |
| other urban centre                                                                                                                     | 18.2   | 20.2                         | 28.0                          | 30.5                            | 3.1                     | 19.7             | 61.4                     | 18.9              | 75.5                | 4,160                               |
| suburban residential                                                                                                                   | 45.9   | 25.2                         | 15.8                          | 12.3                            | 0.8                     | 19.5             | 67.1                     | 13.4              | 89.7                | 13,126                              |
| rural residential                                                                                                                      | 59.9   | 24.0                         | 10.1                          | 5.3                             | 0.7                     | 21.3             | 66.5                     | 12.2              | 96.2                | 2,652                               |
| village centre                                                                                                                         | 51.1   | 23.3                         | 12.9                          | 10.0                            | 2.6                     | 20.2             | 64.5                     | 15.2              | 94.1                | 876                                 |
| rural                                                                                                                                  | 58.0   | 33.6                         | 4.3                           | 2.1                             | 2.0                     | 20.1             | 64.6                     | 15.4              | 97.8                | 729                                 |
| all city/urban<br>centres                                                                                                              | 17.1   | 20.1                         | 26.2                          | 31.7                            | 4.8                     | 20.1             | 60.0                     | 19.9              | 71.8                | 4,804                               |
| suburban                                                                                                                               | 45.9   | 25.2                         | 15.8                          | 12.3                            | 0.8                     | 19.5             | 67.1                     | 13.4              | 89.7                | 13,128                              |
| all rural areas                                                                                                                        | 57.7   | 25.5                         | 9.7                           | 5.7                             | 1.3                     | 20.8             | 65.8                     | 13.4              | 96.1                | 4,257                               |
| deprived local areas                                                                                                                   |        |                              |                               |                                 |                         |                  |                          |                   |                     |                                     |
| most deprived 10%                                                                                                                      | 8.6    | 28.4                         | 35.8                          | 23.8                            | 3.6                     | 23.0             | 60.5                     | 16.6              | 73.6                | 2,082                               |
| 2nd                                                                                                                                    | 14.9   | 26.0                         | 29.5                          | 26.9                            | 2.7                     | 21.9             | 59.3                     | 18.8              | 77.9                | 2,231                               |
| 3rd                                                                                                                                    | 25.6   | 21.0                         | 25.4                          | 25.7                            | 2.4                     | 18.9             | 65.5                     | 15.6              | 84.1                | 2,264                               |
| 4th                                                                                                                                    | 32.6   | 27.0                         | 20.4                          | 17.7                            | 2.3                     | 19.8             | 65.4                     | 14.8              | 84.7                | 2,209                               |
| 5th                                                                                                                                    | 38.3   | 26.8                         | 16.5                          | 16.1                            | 2.3                     | 18.3             | 67.4                     | 14.3              | 87.9                | 2,225                               |
| 6th                                                                                                                                    | 48.3   | 24.3                         | 13.5                          | 12.3                            | 1.6                     | 18.9             | 65.5                     | 15.6              | 89.0                | 2,241                               |
| 7th                                                                                                                                    | 52.1   | 25.9                         | 10.6                          | 10.2                            | 1.2                     | 18.8             | 67.4                     | 13.8              | 90.6                | 2,257                               |
| 8th                                                                                                                                    | 58.2   | 22.7                         | 7.3                           | 10.5                            | 1.3                     | 18.1             | 67.2                     | 14.7              | 92.6                | 2,354                               |
| 9th                                                                                                                                    | 67.0   | 20.6                         | 6.4                           | 5.6                             | 0.4                     | 21.2             | 66.1                     | 12.7              | 94.7                | 2,293                               |
| least deprived 10%                                                                                                                     | 72.5   | 18.6                         | 4.7                           | 3.9                             | 0.3                     | 20.6             | 68.5                     | 10.9              | 94.5                | 2,035                               |
| deprived districts                                                                                                                     |        |                              |                               |                                 |                         |                  |                          |                   |                     |                                     |
| deprived                                                                                                                               | 29.1   | 23.3                         | 23.6                          | 21.7                            | 2.4                     | 21.2             | 65.7                     | 13.1              | 82.3                | 9,313                               |
| other district                                                                                                                         | 51.2   | 24.8                         | 12.1                          | 10.6                            | 1.3                     | 18.0             | 64.8                     | 17.1              | 90.5                | 12,876                              |

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| Summary Statistics Table SST2.5: Stock and amenities-parking provision and smoke alarms – area (Cont.) |                                 |                              |                               |                                 |                         |                  |                 |                   |                     |        |
|--------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------|------------------|-----------------|-------------------|---------------------|--------|
|                                                                                                        | parking provision smoke alarms* |                              |                               |                                 |                         |                  |                 |                   |                     |        |
|                                                                                                        | garage                          | other<br>off road<br>parking | adequate<br>street<br>parking | inadequate<br>street<br>parking | no parking<br>provision | mains<br>powered | battery<br>only | no smoke<br>alarm | with a private plot |        |
| regional group                                                                                         |                                 |                              |                               |                                 |                         |                  |                 |                   |                     |        |
| northern regions                                                                                       | 39.9                            | 24.2                         | 19.9                          | 14.2                            | 1.7                     | 18.4             | 68.2            | 13.4              | 91.2                | 6,432  |
| south east regions                                                                                     | 35.1                            | 22.3                         | 19.4                          | 20.9                            | 2.4                     | 18.0             | 63.7            | 18.4              | 78.2                | 6,791  |
| rest of England                                                                                        | 48.5                            | 25.5                         | 12.9                          | 11.7                            | 1.4                     | 22.4             | 64.5            | 13.0              | 90.8                | 8,966  |
| all dwellings                                                                                          | 41.9                            | 24.1                         | 16.9                          | 15.3                            | 1.8                     | 19.9             | 65.3            | 14.8              | 87.0                | 22,189 |
| Base: all dwellings<br>* smoke alarms are based on households not dwellings                            |                                 |                              |                               |                                 |                         |                  |                 |                   |                     |        |

| Summary Statistics Table SST2.6: Stock and amenities-parking provision and smoke alarms – households<br>percentage of households within group |              |                              |                               |                                 |                         |                  |                 |                   |                           |                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------|-------------------------------|---------------------------------|-------------------------|------------------|-----------------|-------------------|---------------------------|-----------------------------------------|
|                                                                                                                                               |              | pa                           | rking provisi                 | on                              |                         | s                | moke alarms     | 5                 |                           | all<br>households<br>in group<br>(000s) |
|                                                                                                                                               | garage       | other<br>off road<br>parking | adequate<br>street<br>parking | inadequate<br>street<br>parking | no parking<br>provision | mains<br>powered | battery<br>only | no smoke<br>alarm | with a<br>private<br>plot |                                         |
| household                                                                                                                                     |              |                              |                               |                                 |                         |                  |                 |                   |                           |                                         |
| couple under 60                                                                                                                               | 47.5         | 25.2                         | 12.4                          | 13.6                            | 1.3                     | 18.0             | 66.8            | 15.2              | 90.5                      | 4,007                                   |
| couple over 60                                                                                                                                | 63.9         | 18.5                         | 9.2                           | 7.4                             | 1.0                     | 15.4             | 70.9            | 13.7              | 95.1                      | 3,754                                   |
| dependent children                                                                                                                            | 46.6         | 27.2                         | 12.5                          | 12.2                            | 1.5                     | 25.3             | 65.6            | 9.1               | 95.2                      | 5,050                                   |
| lone parent                                                                                                                                   | 20.6         | 29.1                         | 27.5                          | 20.7                            | 2.1                     | 21.9             | 64.4            | 13.7              | 87.1                      | 1,462                                   |
| multi-person<br>household                                                                                                                     | 29.7         | 24.3                         | 21.6                          | 21.7                            | 2.7                     | 18.0             | 62.5            | 19.5              | 85.1                      | 1,527                                   |
| under 60                                                                                                                                      | 24.5         | 26.7                         | 23.1                          | 23.6                            | 2.0                     | 19.3             | 59.2            | 21.5              | 68.3                      | 2,413                                   |
| one person 60 or<br>over                                                                                                                      | 36.4         | 19.8                         | 23.7                          | 17.7                            | 2.5                     | 19.4             | 62.9            | 17.6              | 78.1                      | 3,167                                   |
| age of oldest                                                                                                                                 |              |                              |                               |                                 |                         |                  |                 | 14.3              | 87.0                      |                                         |
| under 60<br>all aver 60 veere                                                                                                                 | 38.2         | 26.5                         | 16.8                          | 16.8                            | 1.7                     | 21.5             | 64.2            | 15.7              | 88.2                      | 13,443                                  |
| all over 75 years                                                                                                                             | 46.8         | 17.4                         | 19.8                          | 14.0                            | 1.7                     | 17.1             | 67.2            | 13.7              | 83.0                      | 2,936                                   |
| age of youngest                                                                                                                               |              |                              |                               |                                 |                         |                  |                 |                   |                           |                                         |
| under 5 years                                                                                                                                 | 33.7         | 26.7                         | 20.0                          | 17.8                            | 1.9                     | 25.5             | 63.9            | 10.7              | 90.2                      | 2,548                                   |
| under 16 years<br>16 years or more                                                                                                            | 39.1<br>44.3 | 28.0<br>22.5                 | 16.5<br>16.4                  | 14.7<br>15.1                    | 1.6<br>1.7              | 25.0<br>17.8     | 64.5<br>65.6    | 10.4<br>16.5      | 93.1<br>85.2              | 6,122<br>15,258                         |
| income groups                                                                                                                                 | 11.0         | 22.0                         | 10.1                          | 1011                            | ,                       | 17.0             | 00.0            | 10.0              | 00.2                      | ,200                                    |
| 1st quintile (lowest)                                                                                                                         | 31.5         | 22.8                         | 24.1                          | 19.1                            | 2.5                     | 19.9             | 62.9            | 17.1              | 84.4                      | 4,272                                   |
| 2nd quintile                                                                                                                                  | 32.1         | 25.4                         | 22.6                          | 17.6                            | 2.2                     | 21.8             | 63.3            | 14.9              | 84.0                      | 4,406                                   |
| 4th quintile                                                                                                                                  | 42.0<br>51.0 | 20.0                         | 15.6                          | 14.4                            | 1.4                     | 19.0             | 67.9            | 14.3              | 89.1<br>90.8              | 4,∠17<br>4,152                          |
| 5th quintile (highest)                                                                                                                        | 57.7         | 21.8                         | 8.4                           | 10.9                            | 1.2                     | 20.6             | 65.8            | 13.6              | 89.3                      | 4,334                                   |
|                                                                                                                                               |              |                              |                               |                                 |                         |                  |                 |                   |                           |                                         |

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| Summary Statis                     | Summary Statistics Table SST2.6: Stock and amenities-parking provision and smoke alarms – households (Cont.) |                              |                               |                                 |                         |                  |                                         |                   |                           |        |  |
|------------------------------------|--------------------------------------------------------------------------------------------------------------|------------------------------|-------------------------------|---------------------------------|-------------------------|------------------|-----------------------------------------|-------------------|---------------------------|--------|--|
|                                    |                                                                                                              | ра                           | rking provisi                 | on                              |                         | SI               | all<br>households<br>in group<br>(000s) |                   |                           |        |  |
|                                    | garage                                                                                                       | other<br>off road<br>parking | adequate<br>street<br>parking | inadequate<br>street<br>parking | no parking<br>provision | mains<br>powered | battery<br>only                         | no smoke<br>alarm | with a<br>private<br>plot |        |  |
| living in poverty                  |                                                                                                              |                              |                               |                                 |                         |                  |                                         |                   |                           |        |  |
| in poverty                         | 31.4                                                                                                         | 22.6                         | 24.1                          | 19.6                            | 2.3                     | 19.9             | 65.9                                    | 14.2              | 84.7                      | 3,665  |  |
| not in poverty                     | 45.2                                                                                                         | 24.4                         | 14.9                          | 14.0                            | 1.6                     | 20.0             | 62.5                                    | 17.5              | 88.1                      | 17,715 |  |
| workless<br>households             | 24.6                                                                                                         | 25.0                         | 27.2                          | 20.7                            | 2.6                     | 10.0             | 66.0                                    | 14.2              | 70.0                      | 2 620  |  |
| workloss                           | 24.0<br>12 7                                                                                                 | 20.0                         | 27.Z                          | 20.7                            | 2.0                     | 19.0             | 50.0<br>50.0                            | 14.2              | 70.0                      | 2,035  |  |
| long term ill/<br>disabilty<br>yes | 38.7                                                                                                         | 24.4                         | 20.2                          | 14.8                            | 1.9                     | 22.0             | 63.1                                    | 15.0              | 85.9                      | 6,413  |  |
| no                                 | 44.6                                                                                                         | 23.9                         | 14.8                          | 15.1                            | 1.6                     | 19.0             | 66.3                                    | 14.7              | 88.1                      | 14,967 |  |
| ethnicity of HRP                   |                                                                                                              |                              |                               |                                 |                         |                  |                                         |                   |                           |        |  |
| white                              | 44.9                                                                                                         | 24.1                         | 15.6                          | 13.9                            | 1.5                     | 20.2             | 65.9                                    | 13.9              | 88.9                      | 19,471 |  |
| black                              | 13.8                                                                                                         | 21.4                         | 30.2                          | 28.3                            | 6.3                     | 17.1             | 60.1                                    | 22.8              | 64.3                      | 613    |  |
| Asian                              | 28.6                                                                                                         | 24.6                         | 20.7                          | 23.4                            | 2.8                     | 14.8             | 57.2                                    | 28.1              | 82.0                      | 815    |  |
| other                              | 18.1                                                                                                         | 25.4                         | 25.7                          | 27.2                            | 3.6                     | 19.0             | 61.9                                    | 19.2              | 69.0                      | 481    |  |
| all minority                       | 21.2                                                                                                         | 23.8                         | 25.0                          | 25.9                            | 4.1                     | 16.5             | 59.2                                    | 24.3              | 73.0                      | 1,909  |  |
| length of residence                |                                                                                                              |                              |                               |                                 |                         |                  |                                         |                   |                           |        |  |
| less than 1 year                   | 27.4                                                                                                         | 24.8                         | 19.7                          | 25.0                            | 3.2                     | 22.9             | 59.9                                    | 17.2              | 75.0                      | 2,135  |  |
| 1-4 years                          | 35.6                                                                                                         | 26.4                         | 19.8                          | 16.0                            | 2.1                     | 25.6             | 61.6                                    | 12.8              | 81.9                      | 4,365  |  |
| 5-9 years                          | 41.4                                                                                                         | 25.6                         | 16.9                          | 14.7                            | 1.4                     | 27.7             | 59.9                                    | 12.4              | 85.9                      | 4,452  |  |
| 10-19 years                        | 45.7                                                                                                         | 24.9                         | 15.0                          | 12.8                            | 1.5                     | 19.2             | 66.3                                    | 14.5              | 89.8                      | 4,409  |  |
| 20-29 years                        | 53.0                                                                                                         | 21.3                         | 12.6                          | 11.9                            | 1.1                     | 8.9              | 72.9                                    | 18.2              | 93.9                      | 2,983  |  |
| 30+ years                          | 51.7                                                                                                         | 19.5                         | 14.4                          | 13.0                            | 1.4                     | 10.0             | 73.6                                    | 16.4              | 96.8                      | 3,035  |  |
| all households                     | 42.8                                                                                                         | 24.1                         | 16.4                          | 15.0                            | 1.7                     | 19.9             | 65.3                                    | 14.8              | 87.5                      | 21,380 |  |

Base: all households

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| Summary Statistics Table SST3.1: Decent homes trend 2006-07                                                                                            |        |            |        |            |  |  |  |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|--------|------------|--------|------------|--|--|--|--|--|--|
|                                                                                                                                                        | 2      | 006        |        | 2007       |  |  |  |  |  |  |
|                                                                                                                                                        | decent | non decent | decent | non decent |  |  |  |  |  |  |
| number (000s):                                                                                                                                         |        |            |        |            |  |  |  |  |  |  |
| owner occupied                                                                                                                                         | 10,107 | 5,335      | 10,256 | 5,304      |  |  |  |  |  |  |
| private rented                                                                                                                                         | 1,388  | 1,223      | 1,494  | 1,244      |  |  |  |  |  |  |
| all private                                                                                                                                            | 11,495 | 6,558      | 11,750 | 6,548      |  |  |  |  |  |  |
| local authority                                                                                                                                        | 1,410  | 676        | 1,335  | 652        |  |  |  |  |  |  |
| RSL                                                                                                                                                    | 1,385  | 465        | 1,418  | 486        |  |  |  |  |  |  |
| all social                                                                                                                                             | 2,794  | 1,142      | 2,753  | 1,138      |  |  |  |  |  |  |
| all tenures                                                                                                                                            | 14,289 | 7,700      | 14,503 | 7,686      |  |  |  |  |  |  |
| percentage:                                                                                                                                            |        |            |        |            |  |  |  |  |  |  |
| owner occupied                                                                                                                                         | 65.4   | 34.6       | 65.9   | 34.1       |  |  |  |  |  |  |
| private rented                                                                                                                                         | 53.2   | 46.8       | 54.6   | 45.4       |  |  |  |  |  |  |
| all private                                                                                                                                            | 63.7   | 36.3       | 64.2   | 35.8       |  |  |  |  |  |  |
| local authority                                                                                                                                        | 67.6   | 32.4       | 67.2   | 32.8       |  |  |  |  |  |  |
| RSL                                                                                                                                                    | 74.8   | 25.2       | 74.5   | 25.5       |  |  |  |  |  |  |
| all social                                                                                                                                             | 71.0   | 29.0       | 70.8   | 29.2       |  |  |  |  |  |  |
| all tenures                                                                                                                                            | 65.0   | 35.0       | 65.4   | 34.6       |  |  |  |  |  |  |
| Base: all dwellings<br>Note: Decent homes (using Housing Health and Safety Rating System as the statutory component) by<br>housing tenure, 2006 - 2007 |        |            |        |            |  |  |  |  |  |  |

# Summary Statistics Table SST3.2: Decent homes – homes

| percentage/mean/median or group | centage/mean/media | n of group |
|---------------------------------|--------------------|------------|
|---------------------------------|--------------------|------------|

|                 |            |       | % group failin | g                                 |                 | average cost to<br>(£s | make decent | all dwellings in<br>group (000s) |
|-----------------|------------|-------|----------------|-----------------------------------|-----------------|------------------------|-------------|----------------------------------|
|                 | non-decent | HHSRS | repair         | modern facilities<br>and services | thermal comfort | mean                   | median      |                                  |
| tenure          |            |       |                |                                   |                 |                        |             |                                  |
| owner occupied  | 34.1       | 22.2  | 6.4            | 2.5                               | 14.7            | 6,942                  | 2,408       | 15,560                           |
| private rented  | 45.4       | 30.5  | 12.5           | 5.1                               | 22.8            | 8,533                  | 4,494       | 2,738                            |
| local authority | 32.8       | 14.7  | 7.6            | 6.3                               | 13.3            | 5,065                  | 2,657       | 1,987                            |
| RSL             | 25.5       | 11.8  | 4.6            | 3.0                               | 13.2            | 4,052                  | 1,268       | 1,904                            |
| all private     | 35.8       | 23.5  | 7.3            | 2.9                               | 15.9            | 7,244                  | 2,651       | 18,298                           |
| all social      | 29.2       | 13.3  | 6.1            | 4.7                               | 13.3            | 4,632                  | 1,855       | 3,891                            |
| vacant          |            |       |                |                                   |                 |                        |             |                                  |
| occupied        | 34.0       | 21.3  | 6.7            | 3.2                               | 14.8            | 6,492                  | 2,474       | 21,242                           |
| vacant          | 48.7       | 31.1  | 17.1           | 4.1                               | 28.5            | 12,582                 | 4,618       | 947                              |
| dwelling age    |            |       |                |                                   |                 |                        |             |                                  |
| pre-1919        | 57.9       | 44.5  | 16.7           | 5.6                               | 20.3            | 10,152                 | 5,352       | 4,766                            |
| 1919-44         | 38.3       | 24.0  | 9.3            | 3.7                               | 15.9            | 7,099                  | 3,095       | 3,864                            |
| 1945-64         | 33.5       | 18.6  | 6.4            | 3.8                               | 15.4            | 5,353                  | 2,414       | 4,345                            |
| 1965-80         | 29.7       | 14.4  | 2.4            | 2.8                               | 17.3            | 3,657                  | 1,338       | 4,806                            |
| 1981-90         | 24.3       | 8.3   | 1.1            | 0.6                               | 18.0            | 2,141                  | 1,024       | 1,878                            |
| post 1990       | 4.3        | 4.1   | 0.1            | 0.0                               | 0.0             | 1,906                  | 678         | 2,531                            |

| Summary Statistics Table SST3.2: Decent homes – homes (Cont.) |              |                           |                                  |                                   |                 |       |        |                 |
|---------------------------------------------------------------|--------------|---------------------------|----------------------------------|-----------------------------------|-----------------|-------|--------|-----------------|
|                                                               |              | average cost to n<br>(£s) | all dwellings in<br>group (000s) |                                   |                 |       |        |                 |
|                                                               | non-decent   | HHSRS                     | repair                           | modern facilities<br>and services | thermal comfort | mean  | median |                 |
| dwelling type                                                 |              |                           |                                  |                                   |                 |       |        |                 |
| end terrace                                                   | 37.4         | 28.0                      | 7.6                              | 2.8                               | 14.2            | 8,344 | 3,672  | 2,082           |
| mid terrace                                                   | 39.1         | 23.3                      | 9.7                              | 3.9                               | 17.8            | 6,246 | 2,915  | 4,158           |
| small terraced house                                          | 39.2         | 26.2                      | 8.6                              | 3.9                               | 18.9            | 5,956 | 3,623  | 2,185           |
| house                                                         | 38.2         | 24.2                      | 9.2                              | 3.4                               | 15.4            | 7,463 | 2,938  | 4,056           |
| all terraced houses                                           | 38.5         | 24.9                      | 9.0                              | 3.6                               | 16.6            | 6,926 | 3,212  | 6,241           |
| semi-detached house                                           | 34.1         | 21.1                      | 7.2                              | 2.4                               | 15.5            | 6,543 | 2,475  | 6,103           |
| detached                                                      | 29.6         | 22.6                      | 4.0                              | 1.7                               | 10.2            | 8,827 | 2,470  | 3,973           |
| bungalow                                                      | 26.6         | 19.5                      | 3.2                              | 3.4                               | 10.3            | 6,737 | 1,666  | 2,102           |
| converted flat                                                | 52.7         | 36.9                      | 20.2                             | 7.8                               | 16.4            | 8,813 | 5,121  | 757             |
| purpose built flat,<br>low rise<br>purpose built flat,        | 34.5         | 12.1                      | 6.0                              | 4.6                               | 23.0            | 4,390 | 1,562  | 2,696           |
| high rise                                                     | 44.4         | 16.6                      | 11.6                             | 8.4                               | 22.7            | 5,105 | 3,088  | 318             |
| all houses<br>all flats                                       | 33.8<br>39.0 | 22.5<br>17 5              | 6.7<br>9.3                       | 14.2<br>17.8                      | 14.2<br>17.8    | 7,140 | 2,556  | 18,418<br>3 771 |
| size                                                          | 00.0         | 17.0                      | 0.0                              | 17.0                              | 17.0            | 0,001 | 2,001  | 0,771           |
| less than 50m <sup>2</sup>                                    | 39.1         | 17.9                      | 7.2                              | 5.2                               | 23.9            | 4,528 | 1,634  | 2,378           |
| 50 to 69m <sup>2</sup>                                        | 34.3         | 21.1                      | 7.6                              | 4.2                               | 16.1            | 6,298 | 3,373  | 5,208           |
| 70 to 89m <sup>2</sup>                                        | 34.0         | 20.9                      | 7.5                              | 3.2                               | 14.9            | 6,235 | 2,324  | 6,440           |
| 90 to 109m <sup>2</sup>                                       | 32.5         | 21.6                      | 7.4                              | 2.5                               | 12.5            | 7,237 | 2,610  | 3,237           |
| 110m <sup>2</sup> or more                                     | 35.2         | 25.1                      | 5.9                              | 1.8                               | 13.2            | 9,238 | 2,695  | 4,926           |
| all dwellings                                                 | 34.6         | 21.7                      | 7.1                              | 3.2                               | 15.4            | 6,857 | 2,556  | 22,189          |
| Base: all dwellings                                           |              |                           |                                  |                                   |                 |       |        |                 |

| percentage/mea           | n/median of group                |
|--------------------------|----------------------------------|
| t to make decent<br>(£s) | all dwellings in<br>group (000s) |

# Summary StatistcsTable SST3.3: Decent homes – area

|                          | % of failing in group failing |       |            |                   |         | average cost to make decent<br>(£s)     |        | all dwellings in<br>group (000s) |
|--------------------------|-------------------------------|-------|------------|-------------------|---------|-----------------------------------------|--------|----------------------------------|
|                          |                               |       | , r        | modern facilities | thermal |                                         |        |                                  |
| type                     | non-decent                    | HHSKS | repair     | and services      | comfort | mean                                    | median |                                  |
| city centre              | 43 1                          | 26.4  | 13.8       | 7 2               | 17 0    | 9 140                                   | 3 971  | 645                              |
| other urban centre       | 40.8                          | 23.6  | 10.0       | 4.7               | 18.1    | 7,449                                   | 3,699  | 4.160                            |
| suburban                 | 29.6                          | 17.2  | 6.0        | 2.5               | 13.2    | 5,969                                   | 2,326  | 13.126                           |
| rural residential        | 34.0                          | 23.7  | 4.1        | 2.6               | 15.5    | 5,706                                   | 2.034  | 2,652                            |
| village centre           | 53.4                          | 41.4  | 11.2       | 4.2               | 23.8    | 9.584                                   | 2.921  | 876                              |
| rural                    | 63.2                          | 55.9  | 11.6       | 5.3               | 28.1    | 10,265                                  | 2,808  | 729                              |
| all city and urban areas | /111                          | 23.9  | 10 5       | 5 1               | 18.0    | 7 687                                   | 3 728  | 4 805                            |
| suburban residential     | 29.6                          | 17.2  | 6.0        | 2.5               | 13.2    | 5,969                                   | 2,326  | 13 126                           |
| all rural                | 43.0                          | 32.9  | 6.8        | 3.4               | 19.2    | 7 845                                   | 2,363  | 4.257                            |
|                          |                               | 02.0  | 0.0        | 0                 |         | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | 2,000  | -,                               |
| deprived local areas     |                               | 20.0  | 0.7        |                   | 1 - 0   | 7 100                                   | 0 507  | 0.000                            |
| most deprived 10% of     | 35.7                          | 20.0  | 8.7        | 5.7               | 15.8    | 7,122                                   | 3,597  | 2,082                            |
| aleas                    | 25 5                          | 10.2  | 0.6        | 20                | 15.0    | 6 1 / 5                                 | 2 004  | 2 221                            |
| 2rd                      | 30.0<br>27.2                  | 19.0  | 9.0        | 3.0<br>2.7        | 15.0    | 6 282                                   | 2,094  | 2,231                            |
| /th                      | 30.2                          | 23.0  | 0.7<br>8 0 | 2.7               | 20.0    | 7 669                                   | 2,300  | 2,204                            |
| 5th                      | 39.6                          | 26.1  | 8.1        | 4.0<br>3.5        | 17.8    | 6 8/1                                   | 2 / 25 | 2,205                            |
| 6th                      | 36.2                          | 23.6  | 5.8        | 3.0               | 16.2    | 6 387                                   | 2,400  | 2,223                            |
| 7th                      | 34.2                          | 24.0  | 6.2        | 2.2               | 14.3    | 7 161                                   | 2,740  | 2,241                            |
| 8th                      | 33.9                          | 21.9  | 6.3        | 2.7               | 17.2    | 7,913                                   | 2,17,0 | 2.354                            |
| 9th                      | 28.7                          | 19.1  | 4.4        | 2.3               | 11.3    | 6.510                                   | 1.792  | 2,293                            |
| least deprived 10% of    | 25.5                          | 15.8  | 4.4        | 1.9               | 10.6    | 6.272                                   | 2.165  | 2.035                            |
| areas                    |                               |       |            |                   |         | - ,                                     | ,      | ,                                |
| deprived districts       |                               |       |            |                   |         |                                         |        |                                  |
| deprived                 | 36.2                          | 21.5  | 8.7        | 3.7               | 15.4    | 6,714                                   | 3,015  | 9,313                            |
| other district           | 33.5                          | 21.8  | 5.9        | 2.9               | 15.4    | 6,969                                   | 2,336  | 12,876                           |
| regional group           |                               |       |            |                   |         |                                         |        |                                  |
| northern regions         | 35.7                          | 23.2  | 7.8        | 2.8               | 15.2    | 6.540                                   | 2.436  | 6,432                            |
| south east regions       | 33.9                          | 18.8  | 7.4        | 3.3               | 16.1    | 6,956                                   | 2,847  | 6,791                            |
| rest of England          | 34.5                          | 22.7  | 6.4        | 3.5               | 15.0    | 7,020                                   | 2,490  | 8,966                            |
| all dwellings            | 34.6                          | 21.7  | 7.1        | 3.2               | 15.4    | 6,857                                   | 2,556  | 22,189                           |
| Base: all dwellings      |                               |       |            |                   |         |                                         |        |                                  |

| Summary Statistics Table SST3.4: Decent homes – households percentage/mean/median of group                                                                                            |                                              |                                              |                                        |                                        |                                              |                                                    |                                                    |                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------------|----------------------------------------------------|----------------------------------------------------|----------------------------------------------------|
|                                                                                                                                                                                       | % of group failing                           |                                              |                                        |                                        |                                              | average cost to make<br>decent (£s)                |                                                    | all households in<br>group (000s)                  |
|                                                                                                                                                                                       | non-decent                                   | HHSRS                                        | repair                                 | modern facilities<br>and services      | thermal comfort                              | mean                                               | median                                             |                                                    |
| household composition<br>couple, under 60<br>couple, aged 60 or over<br>couple with children<br>lone parent<br>multi-person household<br>one person under 60<br>one person aged 60 or | 33.8<br>30.4<br>31.1<br>32.3<br>39.6<br>37.3 | 23.0<br>19.7<br>19.5<br>20.2<br>25.3<br>21.5 | 6.1<br>4.4<br>6.4<br>8.0<br>8.4<br>8.3 | 1.9<br>3.2<br>1.8<br>3.1<br>3.8<br>4.4 | 13.7<br>13.6<br>12.6<br>12.7<br>17.0<br>18.4 | 5,650<br>6,945<br>6,773<br>5,932<br>5,904<br>6,092 | 2,355<br>2,223<br>2,513<br>2,565<br>2,779<br>2,375 | 4,007<br>3,754<br>5,050<br>1,462<br>1,527<br>2,413 |
| over<br><b>age of oldest person</b><br>under 60 years<br>all over 60 years<br>all over 75 years                                                                                       | 39.2<br>33.7<br>34.8<br>36.1                 | 22.1<br>21.3<br>21.3<br>21.5                 | 8.0<br>7.1<br>6.1<br>7.1               | 6.0<br>2.5<br>4.4<br>6.1               | 19.0<br>14.1<br>16.2<br>17.7                 | 7,466<br>6,101<br>7,150<br>8,128                   | 2,961<br>2,445<br>2,594<br>3,807                   | 3,167<br>13,443<br>7,937<br>2,936                  |
| <b>age of youngest person</b><br>under 5 years<br>under 16 years<br>16 years or more                                                                                                  | 31.7<br>31.4<br>35.1                         | 19.5<br>19.6<br>21.9                         | 7.8<br>6.8<br>6.6                      | 2.0<br>2.1<br>3.6                      | 12.8<br>12.6<br>15.8                         | 7,077<br>6,553<br>6,478                            | 2,948<br>2,548<br>2,449                            | 2,548<br>6,122<br>15,258                           |
| <b>income groups</b><br>1st quintile (lowest)<br>2nd quintile<br>3rd quintile<br>4th quintile<br>5th quintile (highest)                                                               | 37.5<br>34.5<br>33.0<br>33.0<br>32.3         | 22.8<br>20.5<br>19.8<br>20.2<br>23.0         | 8.7<br>7.0<br>6.4<br>5.8<br>5.6        | 4.8<br>4.4<br>2.9<br>2.2<br>1.6        | 15.9<br>16.4<br>15.9<br>14.5<br>11.8         | 7,062<br>6,642<br>6,774<br>5,724<br>6,179          | 3,300<br>2,694<br>2,245<br>2,143<br>2,413          | 4,272<br>4,406<br>4,217<br>4,152<br>4,334          |
| <b>poverty</b><br>in poverty<br>not in poverty                                                                                                                                        | 37.6<br>33.3                                 | 22.7<br>21.0                                 | 8.8<br>6.3                             | 5.1<br>2.8                             | 15.7<br>14.8                                 | 7,235<br>6,326                                     | 3,390<br>2,365                                     | 3,665<br>17,715                                    |
| <b>workless households</b><br>workless<br>not workless                                                                                                                                | 35.4<br>33.6                                 | 20.8<br>21.5                                 | 8.2<br>6.7                             | 4.8<br>2.3                             | 14.9<br>14.3                                 | 6,741<br>6,236                                     | 2,874<br>2,396                                     | 2,639<br>13,466                                    |

| Summary Statistics Table SST3.4: Decent homes – households (Cont.)       percentage/mean/median of group |                    |       |        |                                   |                 |                                     |        |                                   |
|----------------------------------------------------------------------------------------------------------|--------------------|-------|--------|-----------------------------------|-----------------|-------------------------------------|--------|-----------------------------------|
|                                                                                                          | % of group failing |       |        |                                   |                 | average cost to make<br>decent (£s) |        | all households in<br>group (000s) |
|                                                                                                          | non-decent         | HHSRS | repair | modern facilities<br>and services | thermal comfort | mean                                | median |                                   |
| long term ill/disability                                                                                 |                    |       |        |                                   |                 |                                     |        |                                   |
| yes                                                                                                      | 32.9               | 19.6  | 6.5    | 4.2                               | 15.2            | 6,660                               | 2,812  | 6,413                             |
| no                                                                                                       | 34.6               | 22.0  | 6.8    | 2.8                               | 14.8            | 6,432                               | 2,408  | 14,967                            |
| ethnic group of HRP                                                                                      |                    |       |        |                                   |                 |                                     |        |                                   |
| white                                                                                                    | 33.9               | 21.5  | 6.6    | 3.1                               | 14.9            | 6,503                               | 2,396  | 19,471                            |
| black                                                                                                    | 37.7               | 17.6  | 6.3    | 6.2                               | 18.0            | 5,774                               | 2,629  | 613                               |
| Asian                                                                                                    | 32.7               | 18.1  | 9.1    | 3.4                               | 11.5            | 6,735                               | 3,760  | 815                               |
| other                                                                                                    | 38.3               | 22.7  | 8.5    | 5.2                               | 17.3            | 6,894                               | 4,300  | 481                               |
| all minority                                                                                             | 35.7               | 19.1  | 8.0    | 4.8                               | 15.0            | 6,453                               | 3,696  | 1,909                             |
| length of residence                                                                                      |                    |       |        |                                   |                 |                                     |        |                                   |
| less than 1 year                                                                                         | 34.6               | 22.1  | 7.9    | 1.5                               | 14.0            | 5,374                               | 2,223  | 2,135                             |
| 1-4 years                                                                                                | 29.4               | 18.2  | 5.8    | 2.1                               | 12.6            | 5,845                               | 2,071  | 4,365                             |
| 5-9 years                                                                                                | 31.1               | 19.3  | 5.9    | 2.5                               | 12.0            | 5,246                               | 2,136  | 4,452                             |
| 10-19 years                                                                                              | 32.8               | 19.5  | 6.1    | 3.1                               | 15.0            | 6,514                               | 2,424  | 4,409                             |
| 20-29 years                                                                                              | 39.0               | 24.9  | 6.8    | 3.6                               | 17.7            | 6,899                               | 2,621  | 2,983                             |
| 30 or more years                                                                                         | 41.8               | 26.9  | 9.0    | 6.8                               | 20.2            | 8,796                               | 4,615  | 3,035                             |
| decent homes target<br>group                                                                             |                    |       |        |                                   |                 |                                     |        |                                   |
| social sector households                                                                                 | 28.1               | 12.8  | 5.3    | 4.8                               | 12.4            | 4,216                               | 1,715  | 3,686                             |
| private sector vulnerable                                                                                | 39.0               | 25.3  | 9.0    | 5.3                               | 16.9            | 8,264                               | 3,820  | 3,160                             |
| private sector non-<br>vulnerable                                                                        | 34.5               | 22.5  | 6.5    | 2.3                               | 15.1            | 6,537                               | 2,413  | 14,534                            |
| all households                                                                                           | 34.1               | 21.3  | 6.7    | 3.2                               | 14.9            | 6,498                               | 2,484  | 21,380                            |
| Base: all households                                                                                     |                    |       |        |                                   |                 |                                     |        |                                   |

| Summary Statistics Table SST4.1: Health and Safety – homes       percentage/mean/median of group |                                            |                                          |                                           |                                        |                                                    |                                              |                                                    |
|--------------------------------------------------------------------------------------------------|--------------------------------------------|------------------------------------------|-------------------------------------------|----------------------------------------|----------------------------------------------------|----------------------------------------------|----------------------------------------------------|
|                                                                                                  | % in this group                            |                                          |                                           |                                        | costs to make safe (£)                             |                                              | all dwellings in<br>group (000s)                   |
|                                                                                                  | fail HHSRS                                 | fails excess cold                        | fails on falls                            | fails on other<br>hazards              | mean                                               | median                                       |                                                    |
| <b>tenure</b><br>owner occupied<br>private rented<br>local authority<br>RSL                      | 22.2<br>30.5<br>14.7<br>11.8               | 10.6<br>15.2<br>4.3<br>3.7               | 11.7<br>15.2<br>8.7<br>6.2                | 3.3<br>8.0<br>3.0<br>3.1               | 3,858<br>4,447<br>2,745<br>2,702                   | 1,480<br>2,351<br>794<br>1,172               | 15,560<br>2,738<br>1,987<br>1,904                  |
| all private<br>all social                                                                        | 23.5<br>13.3                               | 11.3<br>4.0                              | 12.2<br>7.5                               | 4.0<br>3.1                             | 3,972<br>2,726                                     | 1,629<br>1,003                               | 18,298<br>3,891                                    |
| <b>vacant</b><br>occupied<br>vacant                                                              | 21.3<br>31.1                               | 9.8<br>15.2                              | 11.1<br>17.5                              | 3.6<br>8.5                             | 3,681<br>6,272                                     | 1,480<br>2,367                               | 21,242<br>947                                      |
| <b>dwelling age</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>1981-90<br>post 1990         | 44.5<br>24.0<br>18.6<br>14.4<br>8.3<br>4.1 | 24.5<br>10.7<br>7.6<br>5.3<br>2.2<br>0.8 | 22.3<br>12.0<br>10.3<br>7.9<br>5.5<br>3.0 | 9.3<br>4.1<br>2.5<br>2.2<br>1.0<br>0.4 | 5,526<br>3,408<br>2,317<br>1,907<br>1,321<br>1,623 | 2,251<br>1,591<br>1,101<br>791<br>676<br>781 | 4,766<br>3,864<br>4,345<br>4,806<br>1,878<br>2,531 |

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#### Summary Statistics Table SST4.1: Health and Safety – homes (Cont.) percentage/mean/median of group all dwellings in % in this group costs to make safe (£) group (000s) fails on other fail HHSRS fails excess cold fails on falls median hazards mean dwelling type end terrace 28.0 12.9 15.0 4.8 4,522 1,540 2,082 23.3 5.6 2,691 1,172 mid terrace 16.0 6.4 4,158 small terraced house 26.2 7.6 18.1 2,595 1,222 6.2 2,185 medium/large terraced house 24.2 8.3 14.4 5.7 3,837 1,415 4,056 all terraced housing 3,377 1,323 24.9 8.1 15.7 5.9 6,241 semi-detached house 21.1 9.5 11.4 3.4 3,406 1,416 6,103 22.6 6,000 1,915 3,973 detached 14.6 10.1 1.6 bungalow 19.5 13.6 5.8 2.5 2.950 1.480 2.102 16.7 4,257 2,475 converted flat 36.9 19.2 9.0 757 2,565 purpose built flat, low rise 12.1 4.9 6.0 2.6 1,150 2,696 purpose built flat, high rise 16.6 5.3 7.5 5.0 3,885 1,507 318 22.5 10.6 3.8 3,909 1,481 all houses 11.9 18,418 7.3 8.8 3,394 1,730 3,771 all flats 17.5 4.1 size less than 50 sqm 17.9 8.8 2,923 1,657 8.8 4.0 2,378 21.1 8.4 2.974 1,533 5,208 50 to 69 sam 11.8 4.7 70 to 89 sqm 20.9 8.0 11.6 4.0 2,850 1,173 6,440 1,480 90 to 109 sqm 21.6 9.4 11.6 3.9 4,093 3,237 25.1 110 sqm or more 15.3 11.8 2.5 5,863 1,813 4,926 all dwellings 21.7 10.0 11.4 3.8 3,839 1,528 22,189 Base: all dwellings
| Summary Statistics Table SST4.2: Health and Safety – areas percentage/mean/median of group                                                                                    |                                                                              |                                                                         |                                                                             |                                                                    |                                                                                                 |                                                                                        |                                                                                        |  |  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--|--|--|--|--|--|
|                                                                                                                                                                               |                                                                              | % in this                                                               | group                                                                       |                                                                    | costs to m                                                                                      | ake safe (£)                                                                           | all dwellings in<br>group (000s)                                                       |  |  |  |  |  |  |
|                                                                                                                                                                               | fail HHSRS                                                                   | fails excess cold                                                       | fails on falls                                                              | fails on other<br>hazards                                          | mean                                                                                            | median                                                                                 |                                                                                        |  |  |  |  |  |  |
| <b>type</b><br>city centre<br>other urban centre<br>suburban residential<br>rural residential<br>village centre<br>rural<br>all city and urban areas<br>surburban residential | 26.4<br>23.6<br>17.2<br>23.7<br>41.4<br>55.9<br>23.9<br>17.2                 | 11.0<br>8.2<br>6.6<br>13.7<br>25.8<br>48.7<br>8.6<br>6.6                | 13.3<br>13.2<br>10.0<br>11.1<br>18.8<br>17.1<br>13.2<br>10.0                | 8.5<br>5.8<br>2.8<br>2.6<br>8.4<br>4.8<br>6.1<br>2.8               | 4,912<br>3,737<br>3,274<br>3,760<br>5,376<br>5,541<br>3,911<br>3,274                            | 2,351<br>1,723<br>1,150<br>1,480<br>1,948<br>2,079<br>1,730<br>1,150                   | 645<br>4,160<br>13,126<br>2,652<br>876<br>729<br>4,804<br>13 128                       |  |  |  |  |  |  |
| all rural                                                                                                                                                                     | 32.9                                                                         | 22.2                                                                    | 13.7                                                                        | 4.2                                                                | 4,699                                                                                           | 1,808                                                                                  | 4,257                                                                                  |  |  |  |  |  |  |
| deprived local areas<br>most deprived 10% of areas<br>2nd<br>3rd<br>4th<br>5th<br>6th<br>7th<br>8th<br>9th<br>least deprived 10% of areas                                     | 20.0<br>19.3<br>23.3<br>23.0<br>26.1<br>23.6<br>24.0<br>21.9<br>19.1<br>15.8 | 6.6<br>5.8<br>6.7<br>11.3<br>12.4<br>14.3<br>12.9<br>13.0<br>8.7<br>8.1 | 11.1<br>11.6<br>15.0<br>11.3<br>14.0<br>10.3<br>12.0<br>10.1<br>10.5<br>7.9 | 5.9<br>5.0<br>4.5<br>5.4<br>4.2<br>3.6<br>3.1<br>2.7<br>2.3<br>1.6 | 3,040<br>3,144<br>2,935<br>4,786<br>3,765<br>4,529<br>4,082<br>4,082<br>4,483<br>3,655<br>3,624 | 1,430<br>1,481<br>1,349<br>1,552<br>1,681<br>1,808<br>1,630<br>1,639<br>1,087<br>1,449 | 2,082<br>2,231<br>2,264<br>2,209<br>2,225<br>2,241<br>2,257<br>2,354<br>2,293<br>2,035 |  |  |  |  |  |  |
| deprived districts<br>deprived<br>other district                                                                                                                              | 21.5<br>21.8                                                                 | 7.4<br>11.9                                                             | 12.4<br>10.7                                                                | 5.1<br>2.9                                                         | 3,388<br>4,164                                                                                  | 1,336<br>1,666                                                                         | 9,313<br>12,876                                                                        |  |  |  |  |  |  |
| <b>regional group</b><br>northern regions<br>south east regions<br>rest of England                                                                                            | 23.2<br>18.8<br>22.7                                                         | 8.7<br>8.9<br>11.9                                                      | 12.7<br>9.7<br>11.7                                                         | 5.6<br>2.8<br>3.3                                                  | 3,009<br>3,942<br>4,382                                                                         | 1,462<br>1,669<br>1,523                                                                | 6,432<br>6,791<br>8,966                                                                |  |  |  |  |  |  |
| all dwellings                                                                                                                                                                 | 21.7                                                                         | 10.0                                                                    | 11.4                                                                        | 3.8                                                                | 3,839                                                                                           | 1,528                                                                                  | 22,189                                                                                 |  |  |  |  |  |  |
| Base: all dwellings                                                                                                                                                           |                                                                              |                                                                         |                                                                             |                                                                    |                                                                                                 |                                                                                        |                                                                                        |  |  |  |  |  |  |

Annual Report

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#### Summary Statistics Table SST4.3: Health and Safety - households percentage/mean/median of group all households in % in this group costs to make safe (£) group (000s) fails on other fail HHSRS fails excess cold fails on falls median hazards mean household composition couple under 60 23.0 9.9 13.0 3.7 3.548 1.416 4.007 8.2 couple 60 or over 11.7 3,977 1,621 19.7 2.6 3,754 8.0 11.2 4,427 couple with children 19.5 3.6 1,480 5,050 lone parent 20.2 6.9 11.5 2,953 924 4.4 1,462 multi-person household 25.3 8.9 3,237 1.533 1,527 14.4 4.8 9.5 12.3 2,930 one person under 60 21.5 4.0 1,648 2,413 12.5 one person 60 or over 22.1 9.5 3.6 3,605 1,699 3,167 age of oldest person under 60 years 21.3 8.6 12.3 3.9 3,635 1,425 13,443 60 years or more 21.3 11.9 9.2 3.2 3,764 1,694 7,937 12.8 8.7 75 years or more 21.5 3.3 3,948 1,808 2,936 age of youngest person under 5 years 19.5 7.2 10.8 5.2 4,394 1,730 2,548 7.6 19.6 11.2 4.027 1.416 6,122 under 16 vears 4.0 21.9 10.7 11.1 3.5 3,558 1,533 16 years and over 15,258 income groups 1st quintile (lowest) 22.8 3,593 1,634 4,272 10.0 11.5 5.3 2nd quintile 20.5 9.3 10.5 3,415 1,480 4.0 4,406 19.8 8.6 10.8 3.3 3,559 1,427 4,217 3rd quintile 4th quintile 20.2 9.4 10.6 2.9 3,678 1,416 4,152 5th quintile (highest) 11.7 12.2 1,515 23.0 2.6 4,120 4,334 poverty 22.7 9.8 11.6 3,588 1,621 3,665 in poverty 5.4 21.0 9.8 11.0 3,704 3.3 1,480 17,715 not in poverty

| Summary Statistics Table        | SST4.3: Hea | alth and Safety   | – household    | ls (Cont.)                |            | percentage/m | nean/median of group              |
|---------------------------------|-------------|-------------------|----------------|---------------------------|------------|--------------|-----------------------------------|
|                                 |             | % in this         | group          |                           | costs to m | ake safe (£) | all households in<br>group (000s) |
|                                 | fail HHSRS  | fails excess cold | fails on falls | fails on other<br>hazards | mean       | median       |                                   |
| workless households             |             |                   |                |                           |            |              |                                   |
| workless                        | 20.8        | 7.8               | 11.6           | 5.5                       | 3,219      | 1,517        | 2,639                             |
| not workless                    | 21.5        | 9.2               | 12.0           | 3.5                       | 3,749      | 1,449        | 13,466                            |
| long term illness or disability |             |                   |                |                           |            |              |                                   |
| yes                             | 19.6        | 9.2               | 9.6            | 4.0                       | 3,835      | 1,699        | 6,413                             |
| no                              | 22.0        | 10.1              | 11.8           | 3.5                       | 3,625      | 1,451        | 14,967                            |
| ethnic group of HRP             |             |                   |                |                           |            |              |                                   |
| white                           | 21.5        | 10.3              | 11.1           | 3.4                       | 3.657      | 1.480        | 19.471                            |
| black                           | 17.6        | 5.6               | 8.7            | 6.3                       | 4,315      | 2,015        | 613                               |
| Asian                           | 18.1        | 2.9               | 10.8           | 5.3                       | 3,936      | 1,654        | 815                               |
| other                           | 22.7        | 6.4               | 13.7           | 5.7                       | 3,710      | 1,585        | 481                               |
| all minority                    | 19.1        | 4.6               | 10.9           | 5.7                       | 3,980      | 1,585        | 1,909                             |
| length of residence             |             |                   |                |                           |            |              |                                   |
| less than 1 year                | 22.1        | 8.9               | 12.3           | 4.6                       | 3,342      | 1,516        | 2,135                             |
| 1-4 years                       | 18.2        | 6.7               | 10.8           | 3.5                       | 3,287      | 1,226        | 4,365                             |
| 5-9 years                       | 19.3        | 7.4               | 11.1           | 3.7                       | 3,219      | 1,303        | 4,452                             |
| 10-19 years                     | 19.5        | 9.5               | 10.1           | 3.3                       | 4,167      | 1,528        | 4,409                             |
| 20-29 years                     | 24.9        | 12.3              | 12.5           | 3.1                       | 3,954      | 1,487        | 2,983                             |
| 30 or more years                | 26.9        | 16.5              | 10.8           | 3.9                       | 4,002      | 1,866        | 3,035                             |
| all households                  | 21.3        | 9.8               | 11.1           | 3.6                       | 3,683      | 1,481        | 21,380                            |
| Base: all households            |             |                   |                |                           |            |              |                                   |

| Annual |
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| Report |

| Summary Statistics Table SST5.1: Damp and mould – homes percentage of gro |                    |                  |             |          |                            |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------|--------------------|------------------|-------------|----------|----------------------------|--|--|--|--|--|--|--|--|
|                                                                           | condensation/mould | penetrating damp | rising damp | any damp | number of dwellings (000s) |  |  |  |  |  |  |  |  |
| tenure                                                                    |                    |                  |             |          |                            |  |  |  |  |  |  |  |  |
| owner occupied                                                            | 2.5                | 3.0              | 2.6         | 6.6      | 15,560                     |  |  |  |  |  |  |  |  |
| private rented                                                            | 8.4                | 8.8              | 6.1         | 17.9     | 2,738                      |  |  |  |  |  |  |  |  |
| local authority                                                           | 7.9                | 3.7              | 1.9         | 11.7     | 1,987                      |  |  |  |  |  |  |  |  |
| RSL                                                                       | 5.6                | 2.7              | 1.9         | 8.6      | 1,904                      |  |  |  |  |  |  |  |  |
| all private                                                               | 3.4                | 3.9              | 3.1         | 8.3      | 18,298                     |  |  |  |  |  |  |  |  |
| all social                                                                | 6.8                | 3.2              | 1.9         | 10.2     | 3,891                      |  |  |  |  |  |  |  |  |
| vacant                                                                    |                    |                  |             |          |                            |  |  |  |  |  |  |  |  |
| occupied                                                                  | 4.0                | 3.5              | 2.7         | 8.3      | 21,242                     |  |  |  |  |  |  |  |  |
| vacant                                                                    | 4.3                | 8.8              | 7.6         | 16.0     | 947                        |  |  |  |  |  |  |  |  |
| dwelling age                                                              |                    |                  |             |          |                            |  |  |  |  |  |  |  |  |
| pre-1919                                                                  | 5.9                | 10.7             | 9.9         | 20.0     | 4,766                      |  |  |  |  |  |  |  |  |
| 1919-44                                                                   | 4.6                | 3.8              | 2.6         | 9.6      | 3,864                      |  |  |  |  |  |  |  |  |
| 1945-64                                                                   | 4.2                | 1.7              | 0.9         | 6.2      | 4,345                      |  |  |  |  |  |  |  |  |
| 1965-80                                                                   | 3.6                | 1.6              | 0.4         | 5.0      | 4,806                      |  |  |  |  |  |  |  |  |
| 1981-90                                                                   | 1.9                | 1.0              | 0.1         | 2.8      | 1,878                      |  |  |  |  |  |  |  |  |
| post 1990                                                                 | 1.0                | 0.1              | 0.2         | 1.2      | 2,531                      |  |  |  |  |  |  |  |  |
| dwelling type                                                             |                    |                  |             |          |                            |  |  |  |  |  |  |  |  |
| end terrace                                                               | 5.7                | 5.0              | 3.8         | 11.4     | 2,082                      |  |  |  |  |  |  |  |  |
| mid terrace                                                               | 4.9                | 6.0              | 5.9         | 12.9     | 4,158                      |  |  |  |  |  |  |  |  |
| small terrace                                                             | 5.9                | 4.7              | 4.4         | 11.7     | 2.185                      |  |  |  |  |  |  |  |  |
| medium/large terrace                                                      | 4.7                | 6.2              | 5.6         | 12.8     | 4,056                      |  |  |  |  |  |  |  |  |
| all terrace                                                               | 5.1                | 5.7              | 5.2         | 12.4     | 6,241                      |  |  |  |  |  |  |  |  |

| Summary Statistics Tab        | Summary Statistics Table SST5.1: Damp and mould – homes (Cont.)       percentage of group |                  |             |          |                            |  |  |  |  |  |  |  |  |
|-------------------------------|-------------------------------------------------------------------------------------------|------------------|-------------|----------|----------------------------|--|--|--|--|--|--|--|--|
|                               | condensation/mould                                                                        | penetrating damp | rising damp | any damp | number of dwellings (000s) |  |  |  |  |  |  |  |  |
| semi detached                 | 3.0                                                                                       | 2.5              | 2.2         | 6.7      | 6,103                      |  |  |  |  |  |  |  |  |
| detached                      | 1.5                                                                                       | 2.1              | 1.8         | 4.4      | 3,973                      |  |  |  |  |  |  |  |  |
| bungalow                      | 3.1                                                                                       | 1.8              | 1.2         | 4.8      | 2,102                      |  |  |  |  |  |  |  |  |
| converted flat                | 8.3                                                                                       | 11.5             | 7.7         | 21.4     | 757                        |  |  |  |  |  |  |  |  |
| purpose built flat, low rise  | 6.1                                                                                       | 3.7              | 0.8         | 9.4      | 2,696                      |  |  |  |  |  |  |  |  |
| purpose built flat, high rise | 7.7                                                                                       | 6.0              | 1.1         | 13.5     | 318                        |  |  |  |  |  |  |  |  |
| all houses                    | 3.4                                                                                       | 3.4              | 3.0         | 7.9      | 18,418                     |  |  |  |  |  |  |  |  |
| all flats                     | 6.7                                                                                       | 5.4              | 2.2         | 12.2     | 3,771                      |  |  |  |  |  |  |  |  |
| size                          |                                                                                           |                  |             |          |                            |  |  |  |  |  |  |  |  |
| less than 50m <sup>2</sup>    | 6.5                                                                                       | 3.7              | 1.9         | 10.1     | 2,378                      |  |  |  |  |  |  |  |  |
| 50 to 69m <sup>2</sup>        | 5.3                                                                                       | 4.2              | 3.1         | 10.2     | 5,208                      |  |  |  |  |  |  |  |  |
| 70 to 89m <sup>2</sup>        | 4.1                                                                                       | 3.6              | 3.2         | 9.0      | 6,440                      |  |  |  |  |  |  |  |  |
| 90 to 109m <sup>2</sup>       | 2.9                                                                                       | 3.9              | 2.8         | 7.3      | 3,237                      |  |  |  |  |  |  |  |  |
| 110m <sup>2</sup> or more     | 1.8                                                                                       | 3.4              | 2.8         | 6.6      | 4,926                      |  |  |  |  |  |  |  |  |
| all dwellings                 | 4.0                                                                                       | 3.8              | 2.9         | 8.6      | 22,189                     |  |  |  |  |  |  |  |  |
| Base: all dwellings           |                                                                                           |                  |             |          |                            |  |  |  |  |  |  |  |  |

| Summary Statistics Table    | Summary Statistics Table SST5.2: Damp and mould – area percentage of group |                  |             |          |                            |  |  |  |  |  |  |  |  |  |
|-----------------------------|----------------------------------------------------------------------------|------------------|-------------|----------|----------------------------|--|--|--|--|--|--|--|--|--|
|                             | condensation/mould                                                         | penetrating damp | rising damp | any damp | number of dwellings (000s) |  |  |  |  |  |  |  |  |  |
| type                        |                                                                            |                  |             |          |                            |  |  |  |  |  |  |  |  |  |
| city centre                 | 5.3                                                                        | 8.1              | 3.8         | 13.8     | 645                        |  |  |  |  |  |  |  |  |  |
| other urban centre          | 5.4                                                                        | 6.8              | 5.2         | 14.1     | 4,160                      |  |  |  |  |  |  |  |  |  |
| surburban residential       | 3.4                                                                        | 2.4              | 1.9         | 6.4      | 13,126                     |  |  |  |  |  |  |  |  |  |
| rural residential           | 3.2                                                                        | 2.5              | 2.4         | 6.5      | 2,652                      |  |  |  |  |  |  |  |  |  |
| village centre              | 7.1                                                                        | 5.4              | 3.9         | 13.0     | 876                        |  |  |  |  |  |  |  |  |  |
| rural                       | 4.5                                                                        | 9.1              | 7.9         | 15.0     | 729                        |  |  |  |  |  |  |  |  |  |
| all city and urban centres  | 5.4                                                                        | 6.9              | 5.0         | 14.0     | 4,804                      |  |  |  |  |  |  |  |  |  |
| surburban residential       | 3.4                                                                        | 2.4              | 1.9         | 6.4      | 13,128                     |  |  |  |  |  |  |  |  |  |
| all rural                   | 4.2                                                                        | 4.2              | 3.6         | 9.3      | 4,257                      |  |  |  |  |  |  |  |  |  |
| deprived local areas        |                                                                            |                  |             |          |                            |  |  |  |  |  |  |  |  |  |
| most deprived 10% of areas  | 6.7                                                                        | 6.2              | 4.2         | 13.4     | 2,082                      |  |  |  |  |  |  |  |  |  |
| 2nd                         | 6.4                                                                        | 4.8              | 3.7         | 12.2     | 2,231                      |  |  |  |  |  |  |  |  |  |
| 3rd                         | 5.8                                                                        | 4.8              | 3.7         | 11.9     | 2,264                      |  |  |  |  |  |  |  |  |  |
| 4th                         | 4.9                                                                        | 4.6              | 2.8         | 10.3     | 2,209                      |  |  |  |  |  |  |  |  |  |
| 5th                         | 3.9                                                                        | 4.4              | 4.0         | 10.1     | 2,225                      |  |  |  |  |  |  |  |  |  |
| 6th                         | 3.1                                                                        | 3.9              | 3.0         | 7.9      | 2,241                      |  |  |  |  |  |  |  |  |  |
| 7th                         | 2.8                                                                        | 3.0              | 2.3         | 6.6      | 2,257                      |  |  |  |  |  |  |  |  |  |
| 8th                         | 2.1                                                                        | 2.6              | 2.2         | 5.7      | 2,354                      |  |  |  |  |  |  |  |  |  |
| 9th                         | 2.3                                                                        | 1.8              | 2.0         | 4.7      | 2,293                      |  |  |  |  |  |  |  |  |  |
| least deprived 10% of areas | 2.0                                                                        | 1.6              | 0.9         | 3.6      | 2,035                      |  |  |  |  |  |  |  |  |  |
| deprived district           |                                                                            |                  |             |          |                            |  |  |  |  |  |  |  |  |  |
| deprived district           | 4.8                                                                        | 4.6              | 3.3         | 10.5     | 9,313                      |  |  |  |  |  |  |  |  |  |
| other district              | 3.4                                                                        | 3.1              | 2.6         | 7.3      | 12,876                     |  |  |  |  |  |  |  |  |  |
| regional area               |                                                                            |                  |             |          |                            |  |  |  |  |  |  |  |  |  |
| northern regions            | 3.5                                                                        | 3.6              | 3.5         | 8.5      | 6,432                      |  |  |  |  |  |  |  |  |  |
| south east regions          | 4.3                                                                        | 4.1              | 2.4         | 9.1      | 6,791                      |  |  |  |  |  |  |  |  |  |
| rest of England             | 4.1                                                                        | 3.6              | 2.8         | 8.4      | 8,966                      |  |  |  |  |  |  |  |  |  |
| all dwellings               | 4.0                                                                        | 3.8              | 2.9         | 8.6      | 22,189                     |  |  |  |  |  |  |  |  |  |
| Base: all dwellings         |                                                                            |                  |             |          |                            |  |  |  |  |  |  |  |  |  |

| Summary Statistic      | sTable SST5.3: Damp and | l mould – household |             |             | percentage of group            |
|------------------------|-------------------------|---------------------|-------------|-------------|--------------------------------|
|                        | condensation/mould      | penetrating damp    | rising damp | any<br>damp | number of households<br>(000s) |
| composition            |                         |                     |             |             |                                |
| couple under 60        | 3.9                     | 2.7                 | 2.2         | 7.1         | 4,007                          |
| couple 60 or over      | 1.6                     | 1.7                 | 1.5         | 4.2         | 3,754                          |
| couple with children   | 4.9                     | 3.3                 | 2.8         | 9.1         | 5,050                          |
| lone parent            | 7.1                     | 5.4                 | 3.5         | 12.5        | 1,462                          |
| multi-person household | 6.7                     | 6.3                 | 3.7         | 14.0        | 1,527                          |
| one person under 60    | 4.6                     | 6.1                 | 3.7         | 11.5        | 2,413                          |
| one person 60 or over  | 2.4                     | 3.2                 | 2.9         | 6.9         | 3,167                          |
| age of oldest          |                         |                     |             |             |                                |
| under 60 years         | 5.1                     | 4.1                 | 2.9         | 9.8         | 13,443                         |
| all over 60 years      | 2.2                     | 2.6                 | 2.3         | 6.0         | 7,937                          |
| all over 75 years      | 1.7                     | 2.9                 | 2.7         | 6.0         | 2,936                          |
| age of youngest        |                         |                     |             |             |                                |
| under 5 years          | 5.6                     | 13                  | 3.1         | 10.6        | 2 5/18                         |
| under 16 vears         | 5.0                     | 4.0                 | 3.0         | 9.9         | 6 122                          |
| 16 years or more       | 3.4                     | 3.5                 | 2.6         | 7.8         | 15 258                         |
|                        | 0.4                     | 0.0                 | 2.0         | 7.0         | 13,230                         |
| income groups          |                         |                     |             |             |                                |
| 1st quintile (lowest)  | 6.3                     | 5.2                 | 4.2         | 12.2        | 4,272                          |
| 2nd quintile           | 4.7                     | 3.5                 | 3.1         | 9.4         | 4,406                          |
| 3rd quintile           | 3.8                     | 3.5                 | 2.2         | /./         | 4,217                          |
| 4th quintile           | 3.4                     | 3.5                 | 1.9         | 7.4         | 4,152                          |
| oth quintile (highest) | 1.8                     | 2.2                 | 1.9         | 5.2         | 4,334                          |
| living in poverty      |                         |                     |             |             |                                |
| in poverty             | 6.6                     | 5.2                 | 4.2         | 12.4        | 3,665                          |
| not in poverty         | 3.5                     | 3.2                 | 2.4         | 7.5         | 17,715                         |

| Summary Statistic        | sTable SST5.3: Damp and | d mould – household | (Cont.)     |             | percentage of group            |
|--------------------------|-------------------------|---------------------|-------------|-------------|--------------------------------|
|                          | condensation/mould      | penetrating damp    | rising damp | any<br>damp | number of households<br>(000s) |
| workless                 |                         |                     |             |             |                                |
| workless                 | 7.1                     | 5.2                 | 3.8         | 12.7        | 2,639                          |
| not workless             | 4.3                     | 3.7                 | 2.7         | 8.7         | 13,466                         |
| long term ill/disability |                         |                     |             |             |                                |
| yes                      | 4.3                     | 3.5                 | 2.7         | 8.5         | 6,413                          |
| no                       | 3.9                     | 3.6                 | 2.7         | 8.3         | 14,967                         |
| ethnicity of HRP         |                         |                     |             |             |                                |
| white                    | 3.4                     | 3.3                 | 2.6         | 7.6         | 19,471                         |
| black                    | 11.3                    | 5.9                 | 2.8         | 17.7        | 613                            |
| Asian                    | 11.7                    | 7.5                 | 4.6         | 18.6        | 815                            |
| other                    | 5.0                     | 4.9                 | 2.8         | 10.6        | 481                            |
| all minority             | 9.9                     | 6.3                 | 3.6         | 16.3        | 1,909                          |
| length of residence      |                         |                     |             |             |                                |
| less than 1 year         | 5.5                     | 4.1                 | 3.2         | 10.3        | 2,135                          |
| 1-4 years                | 4.7                     | 3.6                 | 2.5         | 8.6         | 4,365                          |
| 5-9 years                | 4.0                     | 3.4                 | 2.0         | 8.0         | 4,452                          |
| 10-19 years              | 4.0                     | 4.0                 | 2.3         | 8.4         | 4,409                          |
| 20-29 years              | 3.4                     | 3.4                 | 2.8         | 7.6         | 2,983                          |
| 30 or more years         | 2.5                     | 3.0                 | 4.0         | 7.8         | 3,035                          |
| all households           | 4.0                     | 3.6                 | 2.7         | 8.4         | 21,380                         |
| Base: all households     |                         |                     |             |             |                                |

| Summary Statistics Table SST6.1: Heating and Insulation – heating and homes percentage of group |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |
|-------------------------------------------------------------------------------------------------|---------|---------|---------------------|--------------|--------------|---------------|-----------------|----------------------------|--------------------------|----------------------------|--------------------|---------------|----------------|------------------|-----------------|---------------------------|--------------|---------------------------------|
|                                                                                                 |         | heating |                     |              | main fu      | el type       |                 | W                          | ater heat                | ing syster                 | em                 |               |                |                  | of boiler       |                           |              | all                             |
|                                                                                                 | central | storage | room <sup>(1)</sup> | gas<br>fired | oil<br>fired | solid<br>fuel | elec-<br>trical | with<br>central<br>heating | dedi-<br>cated<br>boiler | electric<br>immer-<br>sion | instan-<br>taneous | stan-<br>dard | back<br>boiler | combi-<br>nation | conden-<br>sing | conden-<br>sing-<br>combi | no<br>boiler | dwellings<br>in group<br>(000s) |
| tenure                                                                                          |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |
| owner occupied                                                                                  | 91.8    | 5.0     | 3.1                 | 87.3         | 5.3          | 1.3           | 6.2             | 89.3                       | 1.1                      | 7.7                        | 1.9                | 44.3          | 7.8            | 27.7             | 3.5             | 8.1                       | 8.6          | 15,560                          |
| private rented                                                                                  | 79.4    | 13.2    | 7.3                 | 77.2         | 3.6          | 2.3           | 17.0            | 77.6                       | 2.0                      | 17.6                       | 2.8                | 27.7          | 5.6            | 35.1             | 1.1             | 8.0                       | 22.5         | 2,738                           |
| local authority                                                                                 | 89.3    | 8.1     | 2.7                 | 88.2         | 0.5          | 1.7           | 9.6             | 85.2                       | 0.7                      | 11.9                       | 2.1                | 29.4          | 17.2           | 23.9             | 3.6             | 10.1                      | 15.8         | 1,987                           |
| RSL                                                                                             | 85.5    | 12.8    | 1./                 | 82.0         | 1.4          | 1.5           | 15.1            | 82.9                       | 0.6                      | 15.2                       | 1.3                | 28.3          | 12.8           | 28.0             | 2.7             | 8.5                       | 19.7         | 1,904                           |
| all private                                                                                     | 90.0    | 6.3     | 3.8                 | 85.8         | 5.0          | 1.4           | 7.8             | 87.5                       | 1.3                      | 9.1                        | 2.0                | 41.9          | 7.4            | 28.8             | 3.1             | 8.1                       | 10.7         | 18,298                          |
| all social                                                                                      | 87.4    | 10.4    | 2.2                 | 85.2         | 0.9          | 1.6           | 12.3            | 84.1                       | 0.7                      | 13.5                       | 1.7                | 28.9          | 15.0           | 25.9             | 3.2             | 9.3                       | 17.7         | 3,891                           |
| vacant                                                                                          |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |
| occupied                                                                                        | 90.1    | 6.7     | 3.2                 | 86.1         | 4.4          | 1.4           | 8.0             | 87.6                       | 1.1                      | 9.6                        | 1.7                | 40.4          | 8.9            | 28.2             | 3.2             | 8.2                       | 11.1         | 21,242                          |
| vacant                                                                                          | 76.4    | 13.2    | 10.4                | 75.1         | 2.2          | 3.0           | 19.7            | 72.8                       | 2.5                      | 16.9                       | 7.8                | 21.3          | 6.3            | 30.5             | 2.5             | 9.8                       | 29.5         | 947                             |
| dwelling age                                                                                    |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |
| pre-1919                                                                                        | 87.2    | 5.8     | 7.0                 | 81.4         | 8.0          | 2.7           | 8.0             | 85.0                       | 2.0                      | 9.2                        | 3.8                | 30.1          | 6.5            | 38.8             | 1.9             | 9.4                       | 13.4         | 4,766                           |
| 1919-44                                                                                         | 93.3    | 2.8     | 3.9                 | 92.2         | 2.0          | 1.9           | 3.9             | 91.0                       | 1.6                      | 5.1                        | 2.2                | 34.4          | 12.1           | 34.1             | 3.2             | 9.1                       | 7.1          | 3,864                           |
| 1945-64                                                                                         | 91.5    | 5.3     | 3.2                 | 89.3         | 2.8          | 1.8           | 6.2             | 89.3                       | 1.1                      | 8.0                        | 1.6                | 35.7          | 16.8           | 26.3             | 3.1             | 8.9                       | 9.3          | 4,345                           |
| 1965-80                                                                                         | 89.3    | 8.6     | 2.1                 | 84.5         | 4.2          | 0.7           | 10.5            | 85.2                       | 0.6                      | 12.5                       | 1.6                | 44.6          | 7.3            | 22.9             | 3.7             | 7.3                       | 14.2         | 4,806                           |
| 1981-90                                                                                         | 82.5    | 15.3    | 2.2                 | 78.9         | 3.1          | 0.6           | 17.5            | 80.4                       | 0.5                      | 17.9                       | 1.1                | 49.4          | 2.9            | 18.9             | 2.7             | 6.5                       | 19.6         | 1,878                           |
| post 1990                                                                                       | 90.3    | 9.4     | 0.4                 | 84.9         | 4.7          | 0.0           | 10.4            | 88.3                       | 0.4                      | 11.1                       | 0.2                | 55.2          | 1.2            | 20.5             | 4.9             | 7.1                       | 11.0         | 2,531                           |
| dwelling type                                                                                   |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |
| end terrace                                                                                     | 92.1    | 3.6     | 4.3                 | 91.4         | 1.8          | 1.9           | 4.9             | 89.5                       | 1.1                      | 7.3                        | 2.1                | 35.1          | 11.5           | 34.0             | 3.0             | 8.2                       | 8.3          | 2,082                           |
| mid terrace                                                                                     | 89.7    | 4.5     | 5.8                 | 91.8         | 0.6          | 1.8           | 5.8             | 87.5                       | 1.3                      | 8.2                        | 3.0                | 31.9          | 10.9           | 34.6             | 2.6             | 9.4                       | 10.6         | 4,158                           |
| small terrace                                                                                   | 85.7    | 6.7     | 7.6                 | 89.3         | 0.4          | 1.8           | 8.5             | 83.9                       | 1.4                      | 11.6                       | 3.1                | 29.0          | 11.4           | 35.0             | 1.7             | 8.1                       | 14.7         | 2,185                           |
| medium/large                                                                                    |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |
| terrace                                                                                         | 93.1    | 2.9     | 4.0                 | 93.0         | 1.3          | 1.8           | 3.9             | 90.5                       | 1.1                      | 6.0                        | 2.5                | 35.1          | 10.9           | 34.0             | 3.2             | 9.5                       | 7.2          | 4,056                           |
| all terrace                                                                                     | 90.5    | 4.2     | 5.3                 | 91.7         | 1.0          | 1.8           | 5.5             | 88.2                       | 1.2                      | 7.9                        | 2.7                | 33.0          | 11.1           | 34.4             | 2.7             | 9.0                       | 9.9          | 6,241                           |
| semi detached                                                                                   | 93.8    | 3.4     | 2.8                 | 90.7         | 3.2          | 2.1           | 4.1             | 91.9                       | 1.2                      | 5.2                        | 1.7                | 39.9          | 12.5           | 29.5             | 3.0             | 8.7                       | 6.3          | 6,103                           |
| detached                                                                                        | 97.4    | 2.1     | 0.5                 | 84.3         | 12.5         | 0.7           | 2.5             | 95.3                       | 0.9                      | 3.2                        | 0.6                | 67.1          | 2.5            | 14.9             | 6.3             | 6.5                       | 2.7          | 3,973                           |
|                                                                                                 |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                 |

| Summary Statistics Table SST6.1: Heating and |           |         |         |       |         |         |       | lation          | – hea          | ating a            | and ho  | mes ( | 'Cont. | .)     |           | perce            | ntage o | of group           |
|----------------------------------------------|-----------|---------|---------|-------|---------|---------|-------|-----------------|----------------|--------------------|---------|-------|--------|--------|-----------|------------------|---------|--------------------|
|                                              |           | heating |         |       | main fu | el type |       | w               | ater heat      | ing syste          | m       |       |        | type o | of boiler |                  |         | all<br>dwellings   |
|                                              |           |         | (1)     | gas   | oil     | solid   | elec- | with<br>central | dedi-<br>cated | electric<br>immer- | instan- | stand | back   | combi- | conden-   | conden-<br>sing- | no      | in group<br>(000s) |
| hungalaw                                     | central   | storage | room(1) | fired | fired   |         |       | heating         | boiler         | sion               | taneous | ard   |        | nation | sing      | combi            | boiler  | 2 102              |
| pungalow                                     | 91.2      | /.      | 1./     | 80.9  | 9.3     | 1.9     | 17.9  | 88.9            | 0.9            | 8./                | 1.4     | 42.0  | 11.5   | 20.2   | 2.7       | 8.0              | 9.5     | 2,102              |
| converted flat                               | 79.0      | 11.6    | 9.4     | 81.4  | 0.0     | 0.8     | 17.8  | //.5            | 1.6            | 17.4               | 3.5     | 15.3  | 3.1    | 45.8   | 0.7       | 11.2             | 23.9    | /5/                |
| pb flat, low rise                            | /0.1      | 24.8    | 5.1     | 68.6  | 0.0     | 0.4     | 31.0  | 65.6            | 1.1            | 30.3               | 3.0     | 20.0  | 4.6    | 29.7   | 1.0       | 8.2              | 36.5    | 2,696              |
| pb flat, high rise                           | 69.0      | 28.5    | 2.6     | 57.8  | 0.0     | 0.0     | 42.2  | 53.6            | 3.1            | 40.7               | 2.7     | 26.4  | 1.0    | 15.0   | 1.3       | 2.7              | 53.6    | 318                |
| all houses                                   | 93.1      | 3.8     | 3.0     | 88.5  | 5.1     | 1.7     | 4.7   | 91.0            | 1.1            | 6.1                | 1.8     | 43.7  | 9.7    | 27.6   | 3.6       | 8.3              | 7.1     | 18,418             |
| all flats                                    | 71.8      | 22.5    | 5.8     | 70.6  | 0.0     | 0.4     | 29.0  | 67.0            | 1.4            | 28.6               | 3.0     | 19.6  | 4.0    | 31.7   | 1.0       | 8.3              | 35.4    | 3,771              |
| size                                         |           |         |         |       |         |         |       |                 |                |                    |         |       |        |        |           |                  |         |                    |
| less than 50m <sup>2</sup>                   | 69.3      | 24.3    | 6.4     | 67.8  | 0.2     | 0.7     | 31.3  | 64.5            | 1.5            | 30.6               | 3.4     | 18.2  | 6.8    | 27.5   | 1.3       | 8.0              | 38.3    | 2,378              |
| 50 to 69m <sup>2</sup>                       | 85.3      | 9.3     | 5.4     | 86.0  | 1.3     | 1.5     | 11.2  | 83.4            | 0.8            | 13.1               | 2.6     | 29.7  | 10.6   | 32.8   | 2.1       | 9.0              | 15.8    | 5,208              |
| 70 to 89m <sup>2</sup>                       | 92.0      | 4.4     | 3.7     | 90.6  | 1.9     | 2.1     | 5.4   | 89.1            | 1.4            | 7.3                | 2.1     | 36.1  | 12.8   | 30.9   | 2.6       | 8.9              | 8.7     | 6,440              |
| 90 to 109m <sup>2</sup>                      | 95.0      | 3.1     | 1.8     | 90.8  | 4.0     | 1.5     | 3.7   | 93.2            | 0.9            | 4.7                | 1.1     | 47.6  | 7.8    | 29.1   | 2.7       | 7.4              | 5.4     | 3,237              |
| 110m <sup>2</sup> or more                    | 96.9      | 2.1     | 0.9     | 83.4  | 12.8    | 0.9     | 2.9   | 94.6            | 1.1            | 3.3                | 1.0     | 59.6  | 3.1    | 20.3   | 6.2       | 7.4              | 3.4     | 4,926              |
| all dwellings                                | 89.5      | 7.0     | 3.5     | 85.7  | 4.3     | 1.5     | 8.5   | 86.9            | 1.2            | 9.9                | 2.0     | 39.6  | 8.8    | 28.3   | 3.1       | 8.3              | 11.9    | 22,189             |
| Base: all dwelling<br>Notes:                 | <b>js</b> |         |         |       |         |         |       |                 |                |                    |         |       |        |        |           |                  |         |                    |

1. Room heating includes fixed heaters/fires and non-fixed heaters

| Summary Statistics Table SST6.2: Heating and Insulation – heating and areas percentage of group |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                | of group         |                 |                           |              |                    |
|-------------------------------------------------------------------------------------------------|---------|---------|---------------------|--------------|--------------|---------------|-----------------|----------------------------|--------------------------|----------------------------|--------------------|---------------|----------------|------------------|-----------------|---------------------------|--------------|--------------------|
|                                                                                                 |         | heating | 1                   |              | main f       | uel type      |                 | ,                          | water heating system     |                            |                    |               | type of boiler |                  |                 |                           |              | all                |
|                                                                                                 | central | storage | room <sup>(1)</sup> | gas<br>fired | oil<br>fired | solid<br>fuel | elec-<br>trical | with<br>central<br>heating | dedi-<br>cated<br>boiler | electric<br>immer-<br>sion | instan-<br>taneous | stan-<br>dard | back<br>boiler | combi-<br>nation | conden-<br>sing | conden-<br>sing-<br>combi | no<br>boiler | in group<br>(000s) |
| type                                                                                            |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                    |
| city centre                                                                                     | 80.0    | 13.8    | 6.3                 | 80.2         | 0.0          | 0.0           | 19.8            | 76.0                       | 1.1                      | 18.7                       | 4.1                | 31.2          | 3.5            | 33.7             | 1.0             | 6.4                       | 24.2         | 645                |
| other urban centre                                                                              | 86.3    | 8.4     | 5.3                 | 88.7         | 0.1          | 0.6           | 10.7            | 83.1                       | 1.2                      | 12.1                       | 3.6                | 27.8          | 6.7            | 37.4             | 1.9             | 9.4                       | 16.9         | 4,160              |
| suburban                                                                                        | 91.6    | 5.4     | 3.0                 | 92.4         | 0.3          | 0.9           | 6.5             | 89.2                       | 1.0                      | 8.3                        | 1.6                | 40.5          | 9.6            | 27.9             | 3.6             | 9.0                       | 9.4          | 13,126             |
| rural residential                                                                               | 89.9    | 8.4     | 1.7                 | 74.6         | 12.4         | 3.1           | 9.9             | 88.0                       | 1.0                      | 10.1                       | 1.0                | 49.0          | 9.4            | 21.6             | 3.7             | 5.9                       | 10.5         | 2,652              |
| village centre                                                                                  | 82.6    | 12.9    | 4.5                 | 60.1         | 21.2         | 3.8           | 14.8            | 79.6                       | 2.2                      | 16.3                       | 1.9                | 41.4          | 10.1           | 22.3             | 3.0             | 5.2                       | 18.0         | 876                |
| rural                                                                                           | 86.1    | 9.8     | 4.1                 | 24.9         | 54.1         | 9.3           | 11.7            | 83.5                       | 3.7                      | 10.7                       | 2.2                | 61.6          | 6.6            | 12.0             | 2.3             | 2.4                       | 14.9         | 729                |
| all city/urban centres                                                                          | 85.5    | 9.1     | 5.4                 | 87.6         | 0.0          | 0.5           | 11.9            | 82.2                       | 1.2                      | 13.0                       | 3.6                | 28.3          | 6.3            | 36.9             | 1.8             | 9.0                       | 17.8         | 4,804              |
| suburban                                                                                        | 91.6    | 5.4     | 3.1                 | 92.4         | 0.3          | 0.9           | 6.5             | 89.1                       | 1.0                      | 8.3                        | 1.6                | 40.5          | 9.6            | 27.9             | 3.6             | 9.0                       | 9.4          | 13,128             |
| all rural areas                                                                                 | 87.8    | 9.5     | 2.7                 | 63.1         | 21.3         | 4.3           | 11.2            | 85.5                       | 1.7                      | 11.5                       | 1.4                | 49.6          | 9.1            | 20.1             | 3.3             | 5.2                       | 12.8         | 4,257              |
| deprived local areas                                                                            |         |         |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                    |
| most deprived 10%                                                                               | 87.0    | 7.2     | 5.8                 | 88.9         | 0.3          | 1.1           | 9.7             | 83.6                       | 0.8                      | 11.9                       | 3.7                | 27.2          | 11.2           | 33.7             | 1.4             | 10.3                      | 16.2         | 2,082              |
| 2nd                                                                                             | 89.0    | 7.2     | 3.8                 | 89.9         | 0.2          | 1.2           | 8.7             | 86.2                       | 1.1                      | 10.5                       | 2.2                | 28.0          | 11.9           | 35.4             | 1.9             | 9.4                       | 13.5         | 2,231              |
| 3rd                                                                                             | 88.5    | 7.0     | 4.5                 | 89.2         | 1.0          | 1.6           | 8.3             | 85.7                       | 1.1                      | 10.3                       | 2.8                | 27.8          | 10.1           | 36.7             | 1.8             | 10.2                      | 13.4         | 2,264              |
| 4th                                                                                             | 85.1    | 9.2     | 5.7                 | 84.2         | 2.6          | 2.2           | 11.1            | 82.4                       | 1.9                      | 13.0                       | 2.7                | 29.3          | 10.0           | 31.6             | 2.6             | 10.0                      | 16.4         | 2,209              |
| 5th                                                                                             | 88.3    | 8.4     | 3.2                 | 81.2         | 6.6          | 2.2           | 10.1            | 86.2                       | 0.8                      | 11.2                       | 1.8                | 36.0          | 10.9           | 30.5             | 2.6             | 7.1                       | 13.0         | 2,225              |
| 6th                                                                                             | 89.5    | 7.2     | 3.3                 | 81.0         | 7.9          | 2.2           | 8.8             | 86.8                       | 1.5                      | 9.9                        | 1.7                | 40.7          | 8.7            | 27.0             | 3.6             | 8.1                       | 11.9         | 2,241              |
| 7th                                                                                             | 90.5    | 6.7     | 2.8                 | 82.1         | 8.8          | 1.0           | 8.1             | 88.7                       | 1.7                      | 8.2                        | 1.4                | 46.2          | 6.8            | 26.2             | 4.1             | 6.3                       | 10.4         | 2,257              |
| 8th                                                                                             | 89.3    | 7.6     | 3.1                 | 82.5         | 6.4          | 1.8           | 9.3             | 86.6                       | 1.2                      | 10.7                       | 1.5                | 48.9          | 6.2            | 22.9             | 3.7             | 6.7                       | 11.5         | 2,354              |
| 9th                                                                                             | 93.0    | 5.4     | 1.7                 | 86.6         | 5.9          | 0.9           | 6.5             | 90.3                       | 0.8                      | 7.7                        | 1.3                | 53.9          | 6.9            | 19.9             | 4.1             | 7.7                       | 7.4          | 2,293              |
| least deprived 10%                                                                              | 95.2    | 3.8     | 1.0                 | 92.2         | 2.7          | 0.4           | 4.6             | 93.1                       | 0.5                      | 5.7                        | 0.7                | 57.6          | 4.9            | 19.5             | 5.8             | 7.0                       | 5.2          | 2,035              |

percentage of group

## Summary Statistics Table SST6.2: Heating and Insulation – heating and areas (Cont.)

|                                                                |         | heating  |                     |              | main fu      | el type       |                 | Wa                         | ater heat                | ing syste                  | m                  |               |                | type o           | of boiler       |                          |              | all<br>dwellings   |
|----------------------------------------------------------------|---------|----------|---------------------|--------------|--------------|---------------|-----------------|----------------------------|--------------------------|----------------------------|--------------------|---------------|----------------|------------------|-----------------|--------------------------|--------------|--------------------|
|                                                                | central | storage  | room <sup>(1)</sup> | gas<br>fired | oil<br>fired | solid<br>fuel | elec-<br>trical | with<br>central<br>heating | dedi-<br>cated<br>boiler | electric<br>immer-<br>sion | instan-<br>taneous | stan-<br>dard | back<br>boiler | combi-<br>nation | conden-<br>sing | conden-<br>sing<br>combi | no<br>boiler | in group<br>(000s) |
| deprived districts                                             |         |          |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                          |              |                    |
| deprived                                                       | 89.8    | 5.8      | 4.4                 | 90.9         | 0.6          | 1.1           | 7.4             | 86.9                       | 1.1                      | 9.3                        | 2.8                | 31.0          | 8.6            | 36.5             | 1.9             | 9.5                      | 12.4         | 9,313              |
| other district                                                 | 89.3    | 7.9      | 2.9                 | 82.0         | 7.0          | 1.8           | 9.3             | 87.0                       | 1.2                      | 10.4                       | 1.4                | 45.8          | 8.8            | 22.4             | 4.0             | 7.4                      | 11.5         | 12,876             |
| regional group                                                 |         |          |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                          |              |                    |
| northern regions                                               | 91.2    | 4.2      | 4.6                 | 90.5         | 2.2          | 1.9           | 5.5             | 89.0                       | 0.9                      | 7.2                        | 3.0                | 31.3          | 10.5           | 35.4             | 1.8             | 11.0                     | 9.9          | 6,432              |
| south east regions                                             | 89.1    | 8.0      | 2.9                 | 86.1         | 3.1          | 0.7           | 10.1            | 85.6                       | 1.5                      | 11.1                       | 1.9                | 44.1          | 5.4            | 26.2             | 4.2             | 6.7                      | 13.4         | 6,791              |
| rest of England                                                | 88.6    | 8.2      | 3.2                 | 81.9         | 6.7          | 1.8           | 9.5             | 86.5                       | 1.1                      | 11.0                       | 1.4                | 42.1          | 10.0           | 24.9             | 3.3             | 7.5                      | 12.2         | 8,966              |
| all dwellings                                                  | 89.5    | 7.0      | 3.5                 | 85.7         | 4.3          | 1.5           | 8.5             | 86.9                       | 1.2                      | 9.9                        | 2.0                | 39.6          | 8.8            | 28.3             | 3.1             | 8.3                      | 11.9         | 22,189             |
| <b>Base: all dwellings<br/>Notes:</b><br>1. Room heating inclu | des fix | ed heate | ers/fires a         | and nor      | n-fixed      | heaters       |                 |                            |                          |                            |                    |               |                |                  |                 |                          |              |                    |

| Summary Statis                                                                                                                                                                 | ticsT                                                | able S                                          | ST6.3                                         | Heat                                                 | ing a                                         | nd In                                         | sulat                                           | ion – h                                              | neatin                                        | g and                                           | hous                                          | eholo                                                | ls                                               |                                                      |                                               | perc                                          | entage                                           | of group                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------------|-----------------------------------------------|------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|-------------------------------------------------|------------------------------------------------------|-----------------------------------------------|-------------------------------------------------|-----------------------------------------------|------------------------------------------------------|--------------------------------------------------|------------------------------------------------------|-----------------------------------------------|-----------------------------------------------|--------------------------------------------------|-------------------------------------------------------------|
|                                                                                                                                                                                |                                                      | heating                                         |                                               |                                                      | main fue                                      | el type                                       |                                                 | wa                                                   | ater heati                                    | ng syster                                       | n                                             |                                                      |                                                  | type o                                               | of boiler                                     |                                               |                                                  | all                                                         |
|                                                                                                                                                                                | central                                              | storage                                         | room <sup>(1)</sup>                           | gas<br>fired                                         | oil<br>fired                                  | solid<br>fuel                                 | elec-<br>trical                                 | with<br>central<br>heating                           | dedi-<br>cated<br>boiler                      | electric<br>immer-<br>sion                      | instan-<br>taneous                            | stan-<br>dard                                        | back<br>boiler                                   | combi-<br>nation                                     | conden-<br>sing                               | conden-<br>sing-<br>combi                     | no<br>boiler                                     | households<br>in group<br>(000s)                            |
| household<br>composition<br>couple under 60<br>couple 60 or over<br>couple with children<br>lone parent<br>multi-person h'hold<br>one person under 60<br>one person 60 or over | 92.0<br>91.8<br>95.3<br>91.9<br>90.6<br>81.0<br>82.4 | 5.1<br>5.3<br>3.1<br>6.2<br>5.7<br>13.7<br>12.3 | 2.9<br>2.9<br>1.6<br>1.8<br>3.7<br>5.3<br>5.4 | 87.6<br>85.2<br>90.1<br>90.5<br>88.2<br>80.4<br>79.5 | 4.5<br>7.1<br>5.5<br>1.4<br>2.7<br>1.3<br>3.7 | 1.7<br>1.6<br>0.7<br>1.1<br>1.7<br>1.5<br>1.9 | 6.3<br>6.1<br>3.7<br>7.0<br>7.3<br>16.8<br>14.9 | 89.8<br>89.0<br>93.4<br>89.8<br>87.9<br>78.3<br>78.8 | 0.9<br>1.6<br>0.7<br>0.4<br>1.7<br>1.2<br>1.6 | 7.7<br>8.0<br>4.8<br>8.3<br>8.9<br>18.3<br>16.8 | 1.6<br>1.5<br>1.1<br>1.5<br>1.6<br>2.2<br>2.9 | 41.3<br>47.9<br>44.3<br>35.9<br>35.6<br>30.4<br>35.2 | 7.0<br>9.9<br>7.3<br>10.4<br>10.1<br>7.0<br>12.4 | 31.1<br>21.4<br>30.7<br>32.8<br>31.8<br>32.1<br>22.3 | 2.9<br>4.8<br>3.7<br>2.4<br>3.5<br>1.5<br>2.1 | 9.0<br>7.0<br>8.9<br>9.3<br>8.4<br>8.3<br>6.7 | 8.8<br>9.0<br>5.1<br>9.1<br>10.5<br>20.6<br>21.2 | 4,007<br>3,754<br>5,050<br>1,462<br>1,527<br>2,413<br>3,167 |
| age of oldest<br>under 60 years<br>all over 60 years<br>all over75 years                                                                                                       | 91.2<br>87.9<br>83.4                                 | 6.1<br>8.1<br>11.6                              | 2.7<br>4.0<br>5.1                             | 87.7<br>83.2<br>79.3                                 | 3.7<br>5.5<br>5.1                             | 1.2<br>1.7<br>2.0                             | 7.4<br>9.6<br>13.6                              | 89.0<br>84.8<br>80.1                                 | 0.8<br>1.6<br>2.2                             | 8.7<br>11.5<br>15.4                             | 1.5<br>2.1<br>2.3                             | 39.3<br>41.9<br>40.2                                 | 7.5<br>11.1<br>12.3                              | 31.9<br>22.3<br>19.1                                 | 2.8<br>3.7<br>2.6                             | 8.9<br>7.0<br>6.3                             | 9.7<br>14.0<br>19.5                              | 13,443<br>7,937<br>2,936                                    |
| under 5 years<br>under 16 years<br>16 years or more                                                                                                                            | 93.1<br>94.5<br>88.1                                 | 4.9<br>3.9<br>8.0                               | 1.9<br>1.6<br>3.9                             | 89.8<br>90.1<br>84.4                                 | 3.7<br>4.7<br>4.3                             | 0.6<br>0.7<br>1.7                             | 5.9<br>4.5<br>9.7                               | 91.5<br>92.7<br>85.3                                 | 0.4<br>0.6<br>1.3                             | 7.0<br>5.6<br>11.4                              | 1.1<br>1.1<br>2.0                             | 37.5<br>41.8<br>39.6                                 | 7.6<br>8.0<br>9.2                                | 34.4<br>31.6<br>27.0                                 | 2.9<br>3.4<br>3.1                             | 10.2<br>9.2<br>7.8                            | 7.5<br>6.1<br>13.4                               | 2,548<br>6,122<br>15,258                                    |
| <b>income groups</b><br>1st quintile (lowest)<br>2nd quintile<br>3rd quintile<br>4th quintile<br>5th quintile (highest)                                                        | 87.7<br>87.2<br>89.4<br>91.4<br>94.2                 | 8.0<br>8.3<br>6.9<br>6.2<br>4.6                 | 4.3<br>4.5<br>3.7<br>2.4<br>1.2               | 85.2<br>84.9<br>86.4<br>86.4<br>87.3                 | 3.4<br>3.3<br>3.8<br>4.9<br>6.6               | 1.8<br>2.0<br>1.4<br>1.1<br>0.7               | 9.6<br>9.8<br>8.4<br>7.6<br>5.4                 | 85.1<br>84.6<br>86.8<br>89.2<br>91.5                 | 1.5<br>1.3<br>1.0<br>1.2<br>0.6               | 11.3<br>11.7<br>10.5<br>8.4<br>6.7              | 2.1<br>2.4<br>1.7<br>1.2<br>1.2               | 34.8<br>34.1<br>38.8<br>44.6<br>49.2                 | 11.4<br>11.6<br>9.1<br>8.0<br>4.1                | 29.2<br>29.4<br>29.4<br>27.1<br>26.3                 | 2.6<br>2.3<br>2.5<br>2.7<br>5.7               | 8.2<br>8.0<br>8.6<br>8.1<br>8.1               | 13.8<br>14.6<br>11.6<br>9.5<br>6.8               | 4,272<br>4,406<br>4,217<br>4,152<br>4,334                   |
| living in poverty<br>in poverty<br>not in poverty<br>workless households                                                                                                       | 88.0<br>90.4                                         | 7.7                                             | 4.3<br>3.0                                    | 85.5<br>86.1                                         | 3.4<br>4.6                                    | 1.8<br>1.3                                    | 9.3<br>7.9                                      | 85.4<br>87.9                                         | 1.3<br>1.1                                    | 11.0<br>9.4                                     | 2.2                                           | 34.0<br>41.5                                         | 11.0<br>8.4                                      | 29.8<br>28.0                                         | 2.8<br>3.2                                    | 8.7<br>8.1                                    | 13.6<br>10.8                                     | 3,665<br>17,715                                             |
| workless<br>not workless                                                                                                                                                       | 87.8<br>92.0                                         | 8.0<br>5.4                                      | 4.2<br>2.6                                    | 86.6<br>87.7                                         | 2.5<br>4.5                                    | 1.5<br>1.3                                    | 9.4<br>6.6                                      | 85.9<br>89.6                                         | 1.5<br>0.9                                    | 10.9<br>8.1                                     | 1.8<br>1.5                                    | 34.2<br>41.1                                         | 10.2<br>7.6                                      | 29.6<br>30.8                                         | 2.8<br>3.2                                    | 9.4<br>8.6                                    | 13.9<br>8.7                                      | 2,639<br>13,466                                             |

| Summary Statistics Table SST6.3: Heating and Insulation – heating and households (Cont.) percentage of group |              |            |                     |              |              |               |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                         |
|--------------------------------------------------------------------------------------------------------------|--------------|------------|---------------------|--------------|--------------|---------------|-----------------|----------------------------|--------------------------|----------------------------|--------------------|---------------|----------------|------------------|-----------------|---------------------------|--------------|-----------------------------------------|
|                                                                                                              |              | heating    |                     |              | main fue     | el type       |                 | w                          | ater heati               | ing syster                 | n                  |               |                | type             | of boiler       |                           |              |                                         |
|                                                                                                              | central      | storage    | room <sup>(1)</sup> | gas<br>fired | oil<br>fired | solid<br>fuel | elec-<br>trical | with<br>central<br>heating | dedi-<br>cated<br>boiler | electric<br>immer-<br>sion | instan-<br>taneous | stan-<br>dard | back<br>boiler | combi-<br>nation | conden-<br>sing | conden-<br>sing-<br>combi | no<br>boiler | all<br>households<br>in group<br>(000s) |
| long term ill/<br>disability                                                                                 | 00.0         |            | 0.5                 | 05.0         | 0.4          | 4 7           | 0.0             | 05.0                       | 1.0                      |                            | 1.0                | 00.4          | 10.0           |                  | 0.0             | 0.1                       | 10.4         | 0.440                                   |
| no                                                                                                           | 88.2<br>90.7 | 8.4<br>6.2 | 3.5<br>3.1          | 85.3<br>86.3 | 3.4<br>4.8   | 1.7           | 9.6<br>7.6      | 85.3<br>88.3               | 1.3                      | 9.0                        | 1.9                | 38.1<br>41.2  | 10.6<br>8.1    | 26.8<br>28.9     | 2.9<br>3.3      | 8.1                       | 13.4<br>10.4 | 6,413<br>14,967                         |
| <b>ethnicity of HRP</b><br>white                                                                             | 89.9         | 6.8        | 3.3                 | 85.5         | 4.8          | 1.5           | 8.2             | 87.4                       | 1.1                      | 9.8                        | 1.7                | 40.7          | 9.1            | 27.5             | 3.2             | 8.1                       | 11.3         | 19.471                                  |
| black<br>Asian                                                                                               | 88.8<br>95 0 | 9.1<br>3.2 | 2.0                 | 88.8<br>96.4 | 0.2          | 0.4           | 10.6            | 86.3<br>92.8               | 0.4                      | 12.2<br>4 5                | 1.2                | 38.7<br>32.9  | 5.3            | 34.3<br>37.7     | 2.2             | 6.1<br>13.4               | 13.3         | 613<br>815                              |
| other<br>all minority                                                                                        | 87.1<br>91.0 | 9.4<br>6.7 | 3.5                 | 87.0<br>91.6 | 0.8          | 0.1           | 12.1            | 82.9<br>88.2               | 1.7<br>0.8               | 13.3                       | 2.1                | 34.7<br>35.2  | 4.9<br>5.8     | 34.8<br>35.9     | 2.0<br>2.3      | 7.5                       | 16.1<br>11.3 | 481                                     |
| length of residence                                                                                          | 00.4         | 0.7        | 2.0                 | 0.1.5        | 0.0          | 0.2           |                 | 00.5                       | 0.0                      |                            |                    | 00.1          | 5.0            |                  |                 |                           |              | .,                                      |
| less than 1 year<br>1-4 years                                                                                | 88.4<br>90.1 | 9.4<br>7.6 | 2.3                 | 84.5<br>85.8 | 3.3<br>4.5   | 0.8           | 9.3             | 86.5<br>88.1               | 0.7                      | 11.6                       | 1.2                | 30.4<br>34.9  | 5.0<br>6.0     | 36.8             | 2.5             | 11.4                      | 13.8         | 2,135<br>4,365                          |
| 5-9 years<br>10-19 years                                                                                     | 91.7<br>90.3 | 6.6<br>7.2 | 1.7<br>2.5          | 87.3<br>85.7 | 4.3<br>4.5   | 0.6<br>1.5    | 7.7<br>8.4      | 89.2<br>87.3               | 0.7                      | 8.7<br>9.9                 | 1.4<br>1.6         | 39.4<br>46.4  | 7.3<br>8.0     | 31.7<br>24.6     | 3.3<br>3.1      | 8.5<br>7.1                | 9.7<br>10.9  | 4,452<br>4,409                          |
| 20-29 years<br>30 or more years                                                                              | 91.0<br>86.8 | 4.9<br>5.4 | 4.1<br>7.8          | 86.7<br>85.3 | 5.1<br>4.2   | 2.4<br>3.4    | 5.8<br>7.1      | 88.2<br>83.8               | 1.5<br>2.3               | 8.2<br>10.7                | 2.1<br>3.2         | 45.6<br>42.0  | 11.9<br>15.9   | 23.6<br>18.7     | 3.0<br>3.6      | 6.2<br>6.2                | 9.6<br>13.6  | 2,983<br>3,035                          |
| all households                                                                                               | 90.0         | 6.8        | 3.2                 | 86.0         | 4.4          | 1.4           | 8.2             | 87.4                       | 1.1                      | 9.7                        | 1.7                | 40.3          | 8.8            | 28.3             | 3.2             | 8.2                       | 11.3         | 21,380                                  |
| Base: all households<br>Notes:<br>1. Room heating include                                                    | des fixe     | ed heate   | rs/fires a          | ind non      | -fixed h     | eaters        |                 |                            |                          |                            |                    |               |                |                  |                 |                           |              |                                         |

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| Summary Statistics                                                                                                                                             | Table S                                                             | ST6.4: Hea                                                           | ting ar                                                              | nd Insi                                                     | ulation                                              | – insul                                                              | ation ar                                                             | nd home                                                             | S                                                            |                                                                   |                                                               | pe                                                                   | rcentag                                                              | ge of group                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------|------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------------------------------|
|                                                                                                                                                                | wall ty                                                             | pe and insula                                                        | tion                                                                 |                                                             | lo                                                   | ft present                                                           | and insula                                                           | ation                                                               |                                                              | exte                                                              | nt of do                                                      | uble gla                                                             | zing                                                                 | all                                                                         |
|                                                                                                                                                                | cavity<br>insulated                                                 | cavity<br>uninsulated                                                | non-<br>cavity<br>wall <sup>1</sup>                                  | none<br>in loft                                             | less<br>than<br>50mm                                 | 50 to<br>99mm                                                        | 100 to<br>199mm                                                      | 200mm<br>or<br>more                                                 | no<br>loft                                                   | none                                                              | less<br>than<br>half                                          | more<br>than<br>half                                                 | all                                                                  | dwellings<br>in group<br>(000s)                                             |
| <b>tenure</b><br>owner occupied<br>private rented<br>local authority<br>RSL<br>all private                                                                     | 33.1<br>16.8<br>41.8<br>43.3<br>30.7                                | 37.9<br>36.2<br>33.2<br>37.6<br>37.6                                 | 29.0<br>47.0<br>25.0<br>19.0<br>31.7                                 | 3.2<br>6.2<br>1.9<br>1.4<br>3.7                             | 3.0<br>2.7<br>1.3<br>1.0<br>2.9                      | 20.7<br>25.4<br>9.6<br>7.5<br>21.4                                   | 49.4<br>33.2<br>37.2<br>39.4<br>47.0                                 | 19.0<br>11.7<br>23.0<br>27.3<br>17.9<br>25.1                        | 4.7<br>20.8<br>27.0<br>23.5<br>7.1<br>25.2                   | 8.4<br>21.8<br>19.6<br>12.2<br>10.4                               | 7.1<br>10.0<br>5.2<br>3.4<br>7.5                              | 17.4<br>12.6<br>5.9<br>4.6<br>16.7                                   | 67.0<br>55.7<br>69.2<br>79.7<br>65.3                                 | 15,560<br>2,738<br>1,987<br>1,904<br>18,298<br>2 891                        |
| vacant<br>occupied<br>vacant                                                                                                                                   | 33.3<br>20.6                                                        | 37.2<br>38.5                                                         | 29.5<br>40.9                                                         | 3.1<br>7.5                                                  | 2.6<br>2.6                                           | 19.2<br>18.8                                                         | 45.8<br>36.6                                                         | 19.5<br>12.2                                                        | 9.7<br>22.3                                                  | 11.0<br>19.9                                                      | 6.8<br>10.6                                                   | 14.8<br>11.7                                                         | 67.3<br>57.8                                                         | 21,242<br>947                                                               |
| <b>dwelling age</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>1981-90<br>post 1990                                                                       | 3.3<br>22.6<br>44.0<br>41.4<br>48.2<br>56.6                         | 12.9<br>35.7<br>43.0<br>51.6<br>48.5<br>39.9                         | 83.8<br>41.8<br>13.0<br>7.0<br>3.3<br>3.5                            | 8.3<br>4.5<br>2.3<br>1.1<br>0.4<br>0.3                      | 2.2<br>3.5<br>3.3<br>3.7<br>0.5<br>0.3               | 23.7<br>23.5<br>16.5<br>22.0<br>16.7<br>5.1                          | 41.2<br>45.4<br>47.0<br>42.6<br>52.6<br>51.0                         | 14.4<br>18.1<br>22.0<br>16.6<br>15.0<br>33.3                        | 10.3<br>4.9<br>9.0<br>14.1<br>14.8<br>10.1                   | 25.8<br>8.4<br>7.5<br>7.1<br>12.6<br>2.8                          | 15.5<br>7.9<br>4.7<br>4.7<br>3.5<br>0.4                       | 17.9<br>24.8<br>15.9<br>12.4<br>6.4<br>1.8                           | 40.8<br>59.0<br>71.9<br>75.8<br>77.5<br>95.0                         | 4,766<br>3,864<br>4,345<br>4,806<br>1,878<br>2,531                          |
| dwelling type<br>end terrace<br>mid terrace<br>small terrace<br>medium/large terrace<br>all terrace<br>semi detached<br>detached<br>bungalow<br>converted flat | 30.4<br>18.5<br>23.3<br>22.0<br>22.5<br>34.5<br>44.2<br>50.6<br>2.7 | 33.2<br>30.3<br>35.6<br>29.0<br>31.3<br>40.8<br>39.1<br>37.0<br>11.9 | 36.3<br>51.2<br>41.1<br>49.0<br>46.2<br>24.7<br>16.7<br>12.4<br>85.5 | 3.8<br>6.2<br>5.5<br>5.3<br>5.4<br>3.4<br>2.1<br>1.7<br>5.0 | 1.9<br>2.8<br>1.9<br>2.5<br>3.7<br>2.7<br>3.1<br>0.6 | 21.6<br>23.6<br>22.4<br>23.2<br>23.0<br>21.5<br>19.2<br>17.3<br>20.4 | 50.8<br>48.5<br>50.6<br>48.5<br>49.3<br>50.4<br>54.1<br>48.5<br>16.2 | 22.0<br>18.8<br>19.5<br>20.1<br>19.9<br>21.1<br>21.9<br>29.4<br>4.5 | 0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>53.2 | 11.5<br>11.7<br>11.2<br>11.8<br>11.6<br>6.6<br>8.0<br>6.1<br>40.5 | 8.2<br>9.4<br>6.5<br>10.3<br>9.0<br>6.8<br>7.6<br>3.8<br>13.3 | 13.7<br>16.1<br>12.3<br>17.0<br>15.3<br>19.3<br>15.7<br>13.4<br>11.6 | 66.7<br>62.8<br>70.0<br>60.9<br>64.1<br>67.3<br>68.7<br>76.6<br>34.6 | 2,082<br>4,158<br>2,185<br>4,056<br>6,241<br>6,103<br>3,973<br>2,102<br>757 |

## Summary Statistics Table SST6.4: Heating and Insulation – insulation and homes (Cont.)

|                               | wall ty             | pe and insula         | tion                                |                 | lo                   | ft present    | t and insul     | ation            |         | exte | nt of do             | uble gla             | zing | all                             |
|-------------------------------|---------------------|-----------------------|-------------------------------------|-----------------|----------------------|---------------|-----------------|------------------|---------|------|----------------------|----------------------|------|---------------------------------|
|                               | cavity<br>insulated | cavity<br>uninsulated | non-<br>cavity<br>wall <sup>1</sup> | none<br>in loft | less<br>than<br>50mm | 50 to<br>99mm | 100 to<br>199mm | 200mm<br>or more | no loft | none | less<br>than<br>half | more<br>than<br>half | all  | dwellings<br>in group<br>(000s) |
| purpose built flat, low rise  | 32.8                | 47.6                  | 19.6                                | 1.3             | 0.7                  | 8.1           | 22.6            | 7.8              | 59.4    | 20.3 | 2.8                  | 4.6                  | 72.2 | 2,696                           |
| purpose built flat, high rise | 10.4                | 36.8                  | 52.7                                | 0.0             | 0.0                  | 2.0           | 11.3            | 0.0              | 86.8    | 30.8 | 3.9                  | 4.4                  | 60.9 | 318                             |
| all houses                    | 34.4                | 36.8                  | 28.9                                | 3.6             | 3.0                  | 21.0          | 50.6            | 21.8             | 0.0     | 8.6  | 7.4                  | 16.5                 | 67.6 | 18,418                          |
| all flats                     | 24.9                | 39.5                  | 35.6                                | 1.9             | 0.6                  | 10.1          | 20.4            | 6.5              | 60.5    | 25.2 | 5.0                  | 6.0                  | 63.7 | 3,771                           |
| size                          |                     |                       |                                     |                 |                      |               |                 |                  |         |      |                      |                      |      |                                 |
| less than 50m <sup>2</sup>    | 31.0                | 39.9                  | 29.2                                | 1.6             | 0.8                  | 14.4          | 28.7            | 12.7             | 41.9    | 21.2 | 5.0                  | 4.8                  | 68.9 | 2,378                           |
| 50 to 69m <sup>2</sup>        | 30.6                | 38.5                  | 30.9                                | 3.3             | 2.0                  | 16.7          | 42.6            | 18.6             | 16.7    | 12.5 | 5.1                  | 11.0                 | 71.3 | 5,208                           |
| 70 to 89m <sup>2</sup>        | 33.2                | 37.1                  | 29.8                                | 3.7             | 3.5                  | 20.6          | 46.7            | 21.0             | 4.4     | 8.9  | 5.9                  | 16.6                 | 68.5 | 6,440                           |
| 90 to 109m <sup>2</sup>       | 35.5                | 36.2                  | 28.2                                | 3.2             | 2.9                  | 22.3          | 51.2            | 18.3             | 2.1     | 7.6  | 7.9                  | 20.0                 | 64.4 | 3,237                           |
| 110m <sup>2</sup> or more     | 33.5                | 35.5                  | 31.1                                | 3.7             | 2.6                  | 20.1          | 51.0            | 21.2             | 1.4     | 11.1 | 10.6                 | 17.4                 | 60.9 | 4,926                           |
| all dwellings                 | 32.7                | 37.2                  | 30.0                                | 3.3             | 2.6                  | 19.2          | 45.4            | 19.2             | 10.3    | 11.4 | 7.0                  | 14.7                 | 66.9 | 22,189                          |

#### 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

percentage of group

| Summary Statistics Table SST6.5: Heating and Insulation – insulation and areas percentage of gr                         |                                                                              |                                                                      |                                                                              |                                                                                                                                              |                                                                    |                                                                              |                                                                              |                                                                              |                                                                        |                                                                            |                                                                    |                                                                             |                                                                              | ntage of group                                                                         |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
|                                                                                                                         | wall ty                                                                      | ype and insula                                                       | tion                                                                         |                                                                                                                                              | loi                                                                | ft present                                                                   | and insula                                                                   | ation                                                                        |                                                                        | exte                                                                       | nt of do                                                           | uble gla                                                                    | zing                                                                         | all                                                                                    |
|                                                                                                                         | cavity<br>insulated                                                          | cavity<br>uninsulated                                                | non-<br>cavity<br>wall <sup>1</sup>                                          | none<br>in loft                                                                                                                              | less<br>than<br>50mm                                               | 50 to<br>99mm                                                                | 100 to<br>199mm                                                              | 200mm<br>or more                                                             | no loft                                                                | none                                                                       | less<br>than<br>half                                               | more<br>than<br>half                                                        | all                                                                          | dwellings<br>in group<br>(000s)                                                        |
| <b>type</b><br>city centre<br>other urban centre<br>suburban<br>rural residential<br>village centre<br>rural            | 15.4<br>17.4<br>37.2<br>43.3<br>31.7<br>18.1                                 | 25.7<br>32.4<br>40.2<br>37.3<br>30.3<br>29.0                         | 58.8<br>50.2<br>22.5<br>19.4<br>38.0<br>52.9                                 | 3.2<br>4.4<br>2.8<br>1.7<br>5.6<br>8.9                                                                                                       | 0.9<br>1.7<br>2.8<br>3.2<br>3.6<br>2.4                             | 16.9<br>17.8<br>19.1<br>19.3<br>23.4<br>24.8                                 | 33.2<br>38.8<br>47.2<br>49.4<br>45.6<br>48.1                                 | 11.2<br>15.4<br>20.2<br>23.2<br>18.9<br>15.9                                 | 34.6<br>21.8<br>7.9<br>3.2<br>2.9<br>0.0                               | 27.2<br>17.4<br>8.3<br>7.6<br>18.2<br>25.2                                 | 12.4<br>8.6<br>5.9<br>6.3<br>8.3<br>13.7                           | 9.4<br>14.8<br>15.1<br>13.2<br>14.0<br>17.8                                 | 51.0<br>59.2<br>70.8<br>72.9<br>59.5<br>43.3                                 | 645<br>4,160<br>13,126<br>2,652<br>876<br>729                                          |
| all city/urban centres<br>suburban<br>all rural areas                                                                   | 17.1<br>37.2<br>36.6                                                         | 31.5<br>40.2<br>34.4                                                 | 51.4<br>22.5<br>29.0                                                         | 4.3<br>2.8<br>3.7                                                                                                                            | 1.6<br>2.8<br>3.1                                                  | 17.7<br>19.1<br>21.1                                                         | 38.1<br>47.2<br>48.4                                                         | 14.8<br>20.2<br>21.1                                                         | 23.6<br>7.9<br>2.6                                                     | 18.7<br>8.3<br>12.8                                                        | 9.1<br>5.9<br>8.0                                                  | 14.1<br>15.1<br>14.1                                                        | 58.1<br>70.8<br>65.1                                                         | 4,804<br>13,128<br>4,257                                                               |
| deprived local areas<br>most deprived 10%<br>2nd<br>3rd<br>4th<br>5th<br>6th<br>7th<br>8th<br>9th<br>least deprived 10% | 31.4<br>30.8<br>28.3<br>29.0<br>29.9<br>30.9<br>32.5<br>34.8<br>38.2<br>42.2 | 34.2<br>34.7<br>36.6<br>36.1<br>36.3<br>38.6<br>39.2<br>40.9<br>41.5 | 34.4<br>35.0<br>37.0<br>34.4<br>34.0<br>32.9<br>28.9<br>26.0<br>20.9<br>16.2 | <ul> <li>3.3</li> <li>4.2</li> <li>4.0</li> <li>4.2</li> <li>4.3</li> <li>3.4</li> <li>2.8</li> <li>2.9</li> <li>2.2</li> <li>1.8</li> </ul> | 1.5<br>1.7<br>2.0<br>3.1<br>2.5<br>2.6<br>2.9<br>3.3<br>3.4<br>2.8 | 13.5<br>17.0<br>16.4<br>18.8<br>19.3<br>21.4<br>21.5<br>20.1<br>21.1<br>22.4 | 38.7<br>38.9<br>43.8<br>42.9<br>44.7<br>48.2<br>48.3<br>49.7<br>47.2<br>52.0 | 22.6<br>20.0<br>19.5<br>19.0<br>19.4<br>15.7<br>17.8<br>18.4<br>21.9<br>17.6 | 20.4<br>18.2<br>14.3<br>11.9<br>9.8<br>8.8<br>6.7<br>5.8<br>4.2<br>3.3 | 16.2<br>14.5<br>12.8<br>11.7<br>10.4<br>11.3<br>11.4<br>10.4<br>7.9<br>7.4 | 6.8<br>5.2<br>6.4<br>7.3<br>8.7<br>8.6<br>6.7<br>7.4<br>5.6<br>7.0 | 9.4<br>11.5<br>16.0<br>15.7<br>14.6<br>15.6<br>16.3<br>16.4<br>16.3<br>14.9 | 67.6<br>68.7<br>64.8<br>65.3<br>66.3<br>64.6<br>65.7<br>65.8<br>70.2<br>70.7 | 2,082<br>2,231<br>2,264<br>2,209<br>2,225<br>2,241<br>2,257<br>2,354<br>2,293<br>2,035 |

percentage of group

## Summary Statistics Table SST6.5: Heating and Insulation – insulation and areas (Cont.)

|                                                          | wall ty             | pe and insula         | tion                                |                 | lof                  | t present     | and insula      | ation            |           | exter    | nt of do             | uble gla             | zing      | all                             |
|----------------------------------------------------------|---------------------|-----------------------|-------------------------------------|-----------------|----------------------|---------------|-----------------|------------------|-----------|----------|----------------------|----------------------|-----------|---------------------------------|
|                                                          | cavity<br>insulated | cavity<br>uninsulated | non-<br>cavity<br>wall <sup>1</sup> | none<br>in loft | less<br>than<br>50mm | 50 to<br>99mm | 100 to<br>199mm | 200mm<br>or more | no loft   | none     | less<br>than<br>half | more<br>than<br>half | all       | dwellings<br>in group<br>(000s) |
| deprived districts                                       |                     |                       |                                     |                 |                      |               |                 |                  |           |          |                      |                      |           |                                 |
| deprived                                                 | 28.6                | 35.7                  | 35.6                                | 3.9             | 2.2                  | 17.5          | 41.0            | 20.5             | 15.0      | 14.1     | 7.2                  | 14.5                 | 64.2      | 9,313                           |
| other district                                           | 35.7                | 38.3                  | 26.0                                | 2.9             | 2.9                  | 20.4          | 48.7            | 18.2             | 6.8       | 9.4      | 6.8                  | 14.9                 | 68.9      | 12,876                          |
| regional group                                           |                     |                       |                                     |                 |                      |               |                 |                  |           |          |                      |                      |           |                                 |
| northern regions                                         | 37.4                | 39.8                  | 22.8                                | 3.6             | 2.0                  | 16.3          | 46.1            | 26.2             | 5.8       | 8.3      | 6.2                  | 13.8                 | 71.7      | 6,432                           |
| south east regions                                       | 24.7                | 37.0                  | 38.3                                | 3.4             | 2.0                  | 19.6          | 43.2            | 12.4             | 19.3      | 17.1     | 7.2                  | 14.8                 | 60.9      | 6,791                           |
| rest of England                                          | 35.5                | 35.5                  | 29.0                                | 3.0             | 3.5                  | 20.9          | 46.7            | 19.3             | 6.6       | 9.3      | 7.3                  | 15.3                 | 68.1      | 8,966                           |
| all dwellings                                            | 32.7                | 37.2                  | 30.0                                | 3.3             | 2.6                  | 19.2          | 45.4            | 19.2             | 10.3      | 11.4     | 7.0                  | 14.7                 | 66.9      | 22,189                          |
| Base: all dwellings<br>Notes:<br>1. Non-cavity walls are | e predomina         | antly brick and       | stone sc                            | olid walls      | but also             | include a     | minority o      | f homes w        | ith walls | of timbe | er, conc             | rete and             | l metal i | frames, or are                  |

of modular construction

| Summary Statist          | icsTable            | SST6.6: He            | eating                              | and In             | sulatio              | n – ins       | ulation         | and hou          | seholo     | ds   |                      | pei                  | rcentag | ge of group                 |
|--------------------------|---------------------|-----------------------|-------------------------------------|--------------------|----------------------|---------------|-----------------|------------------|------------|------|----------------------|----------------------|---------|-----------------------------|
|                          | wa                  | Ill type and ins      | ulation                             |                    |                      |               | loft pres       | ent and ins      | ulation    | ext  | ent of d             | ouble gl             | azing   | all house-                  |
|                          | cavity<br>insulated | cavity<br>uninsulated | non-<br>cavity<br>wall <sup>1</sup> | none<br>in<br>loft | less<br>than<br>50mm | 50 to<br>99mm | 100 to<br>199mm | 200mm<br>or more | no<br>loft | none | less<br>than<br>half | more<br>than<br>half | all     | holds in<br>group<br>(000s) |
| household<br>composition |                     |                       |                                     |                    |                      |               |                 |                  |            |      |                      |                      |         |                             |
| couple under 60          | 29.9                | 40.5                  | 29.6                                | 2.9                | 2.5                  | 20.4          | 49.0            | 17.2             | 7.9        | 9.6  | 6.5                  | 15.0                 | 69.0    | 4,007                       |
| couple 60 or over        | 42.5                | 34.0                  | 23.5                                | 2.6                | 3.3                  | 18.9          | 47.8            | 23.3             | 4.1        | 8.5  | 6.5                  | 17.7                 | 67.4    | 3,754                       |
| couple with children     | 31.3                | 38.0                  | 30.7                                | 3.6                | 2.7                  | 19.4          | 50.5            | 19.7             | 4.1        | 7.5  | 7.0                  | 15.4                 | 70.1    | 5,050                       |
| lone parent              | 29.6                | 38.9                  | 31.5                                | 3.5                | 1.4                  | 19.7          | 43.0            | 20.6             | 11.8       | 12.5 | 6.3                  | 10.6                 | 70.6    | 1,462                       |
| multi-person household   | 27.1                | 32.9                  | 40.0                                | 3.0                | 3.4                  | 23.0          | 41.9            | 18.3             | 10.3       | 14.4 | 9.2                  | 16.7                 | 59.6    | 1,527                       |
| one person under 60      | 25.9                | 39.6                  | 34.6                                | 3.4                | 1.9                  | 18.0          | 39.6            | 12.3             | 24.9       | 17.8 | 7.6                  | 10.6                 | 64.0    | 2,413                       |
| one person 60 or over    | 39.5                | 34.9                  | 25.6                                | 2.9                | 2.4                  | 16.4          | 38.9            | 22.5             | 16.9       | 14.8 | 5.9                  | 14.4                 | 64.9    | 3,167                       |
| age of oldest            |                     |                       |                                     |                    |                      |               |                 |                  |            |      |                      |                      |         |                             |
| under 60 years           | 29.1                | 38.9                  | 32.1                                | 3.3                | 2.4                  | 19.7          | 46.8            | 17.4             | 10.4       | 11.1 | 7.1                  | 13.8                 | 67.9    | 13,443                      |
| all over 60 years        | 40.2                | 34.4                  | 25.5                                | 2.9                | 2.9                  | 18.3          | 43.7            | 22.9             | 9.4        | 11.1 | 6.3                  | 16.4                 | 66.1    | 7,937                       |
| all over 75 years        | 43.4                | 33.7                  | 22.9                                | 2.9                | 2.7                  | 16.1          | 41.5            | 23.8             | 12.9       | 12.5 | 6.7                  | 17.3                 | 63.5    | 2,936                       |
| age of youngest          |                     |                       |                                     |                    |                      |               |                 |                  |            |      |                      |                      |         |                             |
| under 5 years            | 28.3                | 38.3                  | 33.3                                | 3.8                | 1.8                  | 18.7          | 47.5            | 19.3             | 8.7        | 9.6  | 7.0                  | 13.0                 | 70.4    | 2,548                       |
| under 16 years           | 31.3                | 37.9                  | 30.9                                | 3.6                | 2.4                  | 19.6          | 48.5            | 20.0             | 6.0        | 8.6  | 6.9                  | 14.1                 | 70.4    | 6,122                       |
| 16 years or more         | 33.9                | 36.9                  | 29.1                                | 2.9                | 2.7                  | 19.0          | 44.6            | 19.2             | 11.6       | 12.1 | 6.8                  | 15.1                 | 66.0    | 15,258                      |
| income aroups            |                     |                       |                                     |                    |                      |               |                 |                  |            |      |                      |                      |         |                             |
| 1st quintile (lowest)    | 35.2                | 34.5                  | 30.3                                | 4.1                | 2.4                  | 17.6          | 41.3            | 22.0             | 12.6       | 13.3 | 6.9                  | 13.1                 | 66.7    | 4,272                       |
| 2nd quintile             | 34.7                | 37.6                  | 27.7                                | 2.9                | 2.1                  | 17.6          | 43.6            | 21.4             | 12.3       | 10.9 | 5.6                  | 13.5                 | 69.9    | 4,406                       |
| 3rd quintile             | 33.9                | 38.7                  | 27.4                                | 3.0                | 3.2                  | 19.8          | 46.5            | 18.3             | 9.1        | 8.6  | 5.8                  | 15.3                 | 70.3    | 4,217                       |
| 4th quintile             | 32.9                | 38.4                  | 28.7                                | 2.8                | 3.1                  | 21.4          | 45.8            | 19.0             | 7.9        | 9.8  | 6.0                  | 16.1                 | 68.0    | 4,152                       |
| 5th quintile (highest)   | 29.2                | 36.8                  | 33.9                                | 2.8                | 2.1                  | 19.5          | 51.2            | 16.3             | 8.1        | 12.9 | 9.8                  | 16.0                 | 61.3    | 4,334                       |
| living in poverty        |                     |                       |                                     |                    |                      |               |                 |                  |            |      |                      |                      |         |                             |
| in poverty               | 35.0                | 34.0                  | 30.9                                | 4.1                | 2.5                  | 17.7          | 41.4            | 21.9             | 12.5       | 13.1 | 6.7                  | 13.6                 | 66.6    | 3,665                       |
| not in poverty           | 32.8                | 37.8                  | 29.4                                | 2.9                | 2.6                  | 19.5          | 46.6            | 18.9             | 9.5        | 10.7 | 6.9                  | 15.0                 | 67.4    | 17,715                      |

| Summary Statisti         | icsTable            | SST6.6: He            | eating                              | and In          | sulatio              | n – ins       | ulation         | ation and households (Cont.) percentage of gr<br>and insulation extent of double glazing all ho |         |      |                      |                      |      | e of group                  |
|--------------------------|---------------------|-----------------------|-------------------------------------|-----------------|----------------------|---------------|-----------------|-------------------------------------------------------------------------------------------------|---------|------|----------------------|----------------------|------|-----------------------------|
|                          | wall ty             | vpe and insulat       | tion                                |                 | lof                  | t present     | and insula      | ation                                                                                           |         | exte | nt of do             | uble gla             | zing | all house-                  |
|                          | cavity<br>insulated | cavity<br>uninsulated | non-<br>cavity<br>wall <sup>1</sup> | none<br>in loft | less<br>than<br>50mm | 50 to<br>99mm | 100 to<br>199mm | 200mm<br>or more                                                                                | no loft | none | less<br>than<br>half | more<br>than<br>half | all  | holds in<br>group<br>(000s) |
| workless households      |                     |                       |                                     |                 |                      |               |                 |                                                                                                 |         |      |                      |                      |      |                             |
| workless                 | 34.0                | 35.8                  | 30.2                                | 3.4             | 1.9                  | 16.2          | 39.4            | 21.5                                                                                            | 17.5    | 15.7 | 6.9                  | 9.5                  | 67.9 | 2,639                       |
| not workless             | 29.5                | 38.6                  | 31.9                                | 3.2             | 2.7                  | 20.6          | 48.3            | 17.2                                                                                            | 7.9     | 10.1 | 7.1                  | 15.2                 | 67.6 | 13,466                      |
| long term ill/disability |                     |                       |                                     |                 |                      |               |                 |                                                                                                 |         |      |                      |                      |      |                             |
| yes                      | 39.5                | 35.3                  | 25.2                                | 3.1             | 2.6                  | 17.5          | 42.3            | 23.5                                                                                            | 11.1    | 11.0 | 6.1                  | 13.8                 | 69.0 | 6,413                       |
| no                       | 30.5                | 38.0                  | 31.5                                | 3.2             | 2.6                  | 19.9          | 47.1            | 17.7                                                                                            | 9.5     | 11.2 | 7.1                  | 15.2                 | 66.5 | 14,967                      |
| ethnicity of HRP         |                     |                       |                                     |                 |                      |               |                 |                                                                                                 |         |      |                      |                      |      |                             |
| white                    | 34.6                | 37.4                  | 28.0                                | 3.0             | 2.7                  | 19.3          | 46.2            | 20.0                                                                                            | 8.8     | 10.9 | 6.8                  | 14.6                 | 67.7 | 19,471                      |
| black                    | 15.7                | 39.4                  | 44.9                                | 5.6             | 2.3                  | 15.6          | 36.8            | 11.7                                                                                            | 28.0    | 13.9 | 7.7                  | 14.7                 | 63.6 | 613                         |
| Asian                    | 20.8                | 33.5                  | 45.8                                | 3.4             | 1.6                  | 19.6          | 46.7            | 14.8                                                                                            | 13.9    | 8.7  | 7.6                  | 18.9                 | 64.8 | 815                         |
| other                    | 18.8                | 32.4                  | 48.8                                | 5.8             | 2.1                  | 18.5          | 32.7            | 12.4                                                                                            | 28.5    | 21.1 | 6.4                  | 14.6                 | 58.0 | 481                         |
| all minority             | 18.6                | 35.1                  | 46.3                                | 4.7             | 2.0                  | 18.0          | 40.0            | 13.2                                                                                            | 22.1    | 13.5 | 7.3                  | 16.4                 | 62.7 | 1,909                       |
| length of residence      |                     |                       |                                     |                 |                      |               |                 |                                                                                                 |         |      |                      |                      |      |                             |
| less than 1 year         | 23.8                | 38.4                  | 37.8                                | 3.6             | 1.5                  | 19.0          | 41.1            | 15.4                                                                                            | 19.4    | 14.5 | 6.4                  | 11.7                 | 67.4 | 2,135                       |
| 1-4 years                | 32.5                | 37.2                  | 30.3                                | 3.4             | 1.8                  | 16.5          | 44.0            | 19.9                                                                                            | 14.4    | 12.1 | 6.7                  | 12.1                 | 69.1 | 4,365                       |
| 5-9 years                | 34.8                | 38.3                  | 26.9                                | 3.0             | 2.1                  | 17.4          | 45.2            | 21.9                                                                                            | 10.4    | 9.4  | 5.7                  | 12.6                 | 72.3 | 4,452                       |
| 10-19 years              | 34.3                | 38.3                  | 27.4                                | 2.4             | 2.2                  | 19.5          | 49.1            | 17.6                                                                                            | 9.2     | 10.8 | 6.8                  | 13.3                 | 69.1 | 4,409                       |
| 20-29 years              | 31.6                | 38.8                  | 29.5                                | 2.6             | 4.0                  | 23.1          | 47.4            | 17.8                                                                                            | 5.1     | 10.7 | 8.0                  | 19.9                 | 61.4 | 2,983                       |
| 30 or more years         | 38.4                | 31.3                  | 30.3                                | 4.2             | 4.5                  | 21.4          | 45.4            | 22.0                                                                                            | 2.6     | 10.9 | 7.8                  | 21.1                 | 60.2 | 3,035                       |
| all households           | 33.2                | 37.2                  | 29.6                                | 3.1             | 2.6                  | 19.2          | 45.7            | 19.4                                                                                            | 10.0    | 11.1 | 6.8                  | 14.8                 | 67.2 | 21,380                      |

#### 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 Stat                                                                        | istic                           | sTab                                     | le SS                                        | ST7.1:                                      | Enei                                      | rgy F                                  | Perform                                      | ance                            | e – ho                                  | s <sup>(1)</sup>                            |                                              |                                            |                                         |                                              | percen                                                    | tage/means                                               | of group                                               |                                                      |
|-------------------------------------------------------------------------------------|---------------------------------|------------------------------------------|----------------------------------------------|---------------------------------------------|-------------------------------------------|----------------------------------------|----------------------------------------------|---------------------------------|-----------------------------------------|---------------------------------------------|----------------------------------------------|--------------------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------|
|                                                                                     | A/B                             | e<br>rat<br>(%<br>C                      | nergy e<br>ting (EE<br>% of all<br>D         | efficienc<br>ER) ban<br>in grou<br>E        | ;y<br>d <sup>(2)</sup><br>p)<br>F         | G                                      | mean<br>EER<br>(SAP)<br>rating               | A/B                             | envi<br>ra<br>(%<br>C                   | ironme<br>ting (El<br>6 of all<br>D         | ntal im<br>R) band<br>in grou<br>E           | pact<br>J <sup>(2)</sup><br>p)<br>F        | G                                       | mean<br>EIR<br>rating                        | mean<br>energy<br>use<br>(kWh/m <sup>2</sup><br>per year) | mean<br>energy<br>cost<br>(£ per<br>year) <sup>(3)</sup> | mean CO <sub>2</sub><br>emissions<br>(tonnes/<br>year) | all<br>dwellings<br>in group<br>(000s)               |
| tenure<br>owner occupied<br>private rented<br>local authority<br>RSL<br>all private | 0.0<br>0.4<br>0.4<br>0.8<br>0.1 | 4.2<br>9.6<br>14.6<br>26.5<br>5.0        | 30.6<br>29.3<br>46.2<br>43.5<br>30.4         | 43.9<br>36.5<br>30.2<br>22.8<br>42.8        | 17.5<br>16.5<br>6.5<br>4.8<br>17.3        | 3.8<br>7.8<br>2.0<br>1.6<br>4.4        | 48.1<br>48.1<br>56.2<br>59.5<br>48.1         | 0.0<br>0.2<br>0.1<br>0.2<br>0.1 | 1.9<br>5.3<br>6.8<br>14.9<br>2.4        | 18.1<br>20.9<br>35.2<br>40.9<br>18.5        | 47.5<br>42.9<br>46.2<br>33.9<br>46.8         | 28.4<br>24.3<br>10.1<br>8.7<br>27.8        | 4.1<br>6.4<br>1.6<br>1.5<br>4.5         | 43.6<br>44.9<br>51.7<br>55.2<br>43.8         | 404<br>450<br>386<br>363<br>411<br>275                    | 693<br>599<br>438<br>407<br>679                          | 7.3<br>6.1<br>4.4<br>4.0<br>7.1                        | 15,560<br>2,738<br>1,987<br>1,904<br>18,298<br>2 891 |
| vacant<br>vacant<br>vacant<br>dwelling age                                          | 0.0<br>0.1<br>0.6               | 7.6<br>10.8                              | 33.1<br>30.7                                 | 40.3<br>31.7                                | 5.7<br>15.2<br>16.6                       | 3.7<br>9.6                             | 49.9<br>48.3                                 | 0.2<br>0.1<br>0.3               | 3.8<br>5.3                              | 21.9<br>21.5                                | 40.2<br>45.8<br>41.4                         | 9.4<br>24.5<br>25.2                        | 3.8<br>6.4                              | 45.5<br>44.8                                 | 402<br>455                                                | 635<br>621                                               | 6.6<br>6.3                                             | 21,242<br>947                                        |
| pre-1919<br>1919-44<br>1945-64<br>1965-80<br>1981-90<br>post 1990                   | 0.0<br>0.0<br>0.2<br>0.5<br>0.6 | 0.4<br>1.6<br>3.6<br>8.2<br>15.0<br>31.5 | 15.5<br>22.7<br>34.8<br>38.4<br>43.9<br>59.9 | 44.6<br>50.6<br>44.8<br>41.4<br>35.8<br>6.9 | 29.6<br>21.1<br>14.0<br>9.5<br>3.7<br>0.9 | 9.8<br>4.0<br>2.7<br>2.3<br>1.2<br>0.2 | 40.4<br>45.5<br>49.5<br>52.4<br>56.6<br>64.7 | 0.1<br>0.0<br>0.0<br>0.2<br>0.2 | 0.4<br>0.2<br>1.1<br>3.6<br>8.5<br>17.9 | 5.7<br>10.6<br>18.2<br>27.4<br>30.4<br>59.4 | 41.4<br>49.0<br>53.3<br>49.4<br>53.7<br>22.1 | 41.6<br>35.9<br>24.6<br>18.1<br>7.0<br>0.4 | 10.7<br>4.3<br>2.8<br>1.5<br>0.2<br>0.0 | 36.5<br>40.7<br>44.7<br>48.3<br>52.5<br>60.8 | 480<br>441<br>410<br>383<br>359<br>271                    | 853<br>678<br>598<br>558<br>508<br>457                   | 9.0<br>7.2<br>6.2<br>5.7<br>5.1<br>4.5                 | 4,766<br>3,864<br>4,345<br>4,806<br>1,878<br>2,531   |

|  | Annual |
|--|--------|
|  | Report |

| Summary Stat                                                                                                                                                                     | istic                                                | sTab                                                                                                                   | le SS                                                        | ST7.1:                                                                                                                     | Ene                                                       | rgy F                                                                                                 | Perform                                                      | nance                                         | e – ho                                                                                                                | ome                                                                                                                        | s <sup>(1)</sup> (C                                                                                                        | Cont.,                                                                                                                  | )                                                                                                                  | mean mean energy mean CO, a                                  |                                                           |                                                          |                                                        |                                                              |  |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------|--|--|--|--|
|                                                                                                                                                                                  | A/B                                                  | e<br>rat<br>(%                                                                                                         | energy e<br>ting (EE<br>% of all<br>D                        | efficienc<br>R) ban<br>in grou<br>E                                                                                        | cy<br>d <sup>(2)</sup><br>ip)<br>F                        | G                                                                                                     | mean<br>EER<br>(SAP)<br>rating                               | A/B                                           | env<br>ra<br>(%                                                                                                       | ironme<br>ting (E<br>% of all<br>D                                                                                         | ntal im<br>IR) ban<br>in grou<br>E                                                                                         | ipact<br>d <sup>(2)</sup><br>ip)<br>F                                                                                   | G                                                                                                                  | mean<br>EIR<br>rating                                        | mean<br>energy<br>use<br>(kWh/m <sup>2</sup><br>per year) | mean<br>energy<br>cost<br>(£ per<br>year) <sup>(3)</sup> | mean CO <sub>2</sub><br>emissions<br>(tonnes/<br>year) | al<br>dwelling<br>in grou<br>(000s                           |  |  |  |  |
| dwelling type                                                                                                                                                                    |                                                      |                                                                                                                        |                                                              |                                                                                                                            |                                                           |                                                                                                       | -                                                            |                                               |                                                                                                                       |                                                                                                                            |                                                                                                                            |                                                                                                                         |                                                                                                                    | -                                                            |                                                           | -                                                        | -                                                      |                                                              |  |  |  |  |
| end terrace<br>mid terrace                                                                                                                                                       | 0.0<br>0.0                                           | 5.3<br>10.7                                                                                                            | 29.3<br>38.7                                                 | 40.0<br>40.5                                                                                                               | 21.1<br>7.4                                               | 4.3<br>2.8                                                                                            | 47.2<br>53.4                                                 | 0.0<br>0.0                                    | 2.0<br>5.7                                                                                                            | 19.5<br>26.1                                                                                                               | 39.8<br>52.2                                                                                                               | 33.8<br>14.1                                                                                                            | 4.8<br>1.9                                                                                                         | 42.9<br>49.0                                                 | 430<br>376                                                | 636<br>532                                               | 6.6<br>5.4                                             | 2,082<br>4,158                                               |  |  |  |  |
| small terrace<br>medium/large terrace                                                                                                                                            | 0.0<br>0.0                                           | 11.7<br>7.3                                                                                                            | 39.6<br>33.4                                                 | 35.3<br>43.0                                                                                                               | 9.8<br>13.1                                               | 3.5<br>3.2                                                                                            | 53.1<br>50.4                                                 | 0.0<br>0.0                                    | 5.9<br>3.7                                                                                                            | 28.6<br>21.3                                                                                                               | 47.6<br>48.3                                                                                                               | 15.6<br>23.4                                                                                                            | 2.2<br>3.2                                                                                                         | 49.1<br>45.8                                                 | 417<br>382                                                | 450<br>629                                               | 4.5<br>6.5                                             | 2,185<br>4,056                                               |  |  |  |  |
| all terrace<br>semi detached<br>detached<br>bungalow<br>converted flat<br>purpose built flat,<br>low rise<br>purpose built flat,<br>bigh rise                                    | 0.0<br>0.0<br>0.0<br>0.0<br>0.0<br>1.2               | 8.9<br>2.7<br>2.1<br>2.4<br>1.4<br>28.5                                                                                | 35.6<br>28.8<br>33.9<br>25.9<br>23.6<br>42.5                 | 40.3<br>46.8<br>37.0<br>47.8<br>51.5<br>20.1                                                                               | 11.9<br>18.1<br>22.4<br>17.7<br>13.6<br>5.5               | 3.3<br>3.6<br>4.5<br>6.3<br>10.0<br>2.2<br>2.6                                                        | 51.3<br>47.3<br>46.9<br>46.0<br>44.3<br>59.9                 | 0.0<br>0.1<br>0.1<br>0.1<br>0.0<br>0.3        | 4.5<br>0.8<br>0.6<br>0.8<br>0.5<br>16.7                                                                               | 23.9<br>16.1<br>19.7<br>12.7<br>10.0<br>41.9                                                                               | 48.1<br>46.9<br>42.7<br>50.7<br>53.4<br>36.3                                                                               | 20.7<br>32.3<br>29.8<br>30.3<br>29.8<br>4.5                                                                             | 2.9<br>4.0<br>7.1<br>5.4<br>6.2<br>0.3                                                                             | 46.9<br>42.5<br>42.1<br>41.7<br>40.9<br>57.1                 | 394<br>415<br>370<br>464<br>529<br>375                    | 566<br>659<br>925<br>599<br>584<br>372                   | 5.8<br>6.9<br>9.9<br>6.2<br>5.8<br>3.5                 | 6,241<br>6,103<br>3,973<br>2,102<br>757<br>2,696             |  |  |  |  |
| all houses<br>all flats<br><b>size</b><br>less than 50m <sup>2</sup><br>50 to 69m <sup>2</sup><br>70 to 89m <sup>2</sup><br>90 to 109m <sup>2</sup><br>110m <sup>2</sup> or more | 0.9<br>0.0<br>0.9<br>1.2<br>0.1<br>0.0<br>0.0<br>0.0 | <ul> <li>24.3</li> <li>4.6</li> <li>22.7</li> <li>22.7</li> <li>10.9</li> <li>5.0</li> <li>4.3</li> <li>2.8</li> </ul> | 38.7<br>31.9<br>38.4<br>38.7<br>37.8<br>32.3<br>29.8<br>28.0 | <ul> <li>25.0</li> <li>42.6</li> <li>26.8</li> <li>24.0</li> <li>37.1</li> <li>46.1</li> <li>44.4</li> <li>39.6</li> </ul> | 8.5<br>16.9<br>7.4<br>8.9<br>10.1<br>12.9<br>18.0<br>25.1 | <ul> <li>4.0</li> <li>3.8</li> <li>4.4</li> <li>4.0</li> <li>3.6</li> <li>3.5</li> <li>4.5</li> </ul> | 57.4<br>48.4<br>56.6<br>56.2<br>52.4<br>49.4<br>48.1<br>45.8 | 0.2<br>0.0<br>0.2<br>0.1<br>0.1<br>0.0<br>0.0 | <ol> <li>11.0</li> <li>2.0</li> <li>13.0</li> <li>12.7</li> <li>5.2</li> <li>2.3</li> <li>2.3</li> <li>1.2</li> </ol> | <ul> <li>42.6</li> <li>19.1</li> <li>35.6</li> <li>34.6</li> <li>27.4</li> <li>19.7</li> <li>15.9</li> <li>16.8</li> </ul> | <ul> <li>38.2</li> <li>46.8</li> <li>39.9</li> <li>41.4</li> <li>47.2</li> <li>49.9</li> <li>46.3</li> <li>40.0</li> </ul> | <ul> <li>7.8</li> <li>27.6</li> <li>9.9</li> <li>9.6</li> <li>17.1</li> <li>24.4</li> <li>31.5</li> <li>35.4</li> </ul> | <ul> <li>0.2</li> <li>4.4</li> <li>1.5</li> <li>1.4</li> <li>3.0</li> <li>3.8</li> <li>3.9</li> <li>6.5</li> </ul> | 53.1<br>43.8<br>53.7<br>53.6<br>48.3<br>44.7<br>43.3<br>41.1 | 404<br>406<br>464<br>420<br>408<br>391<br>362             | 428<br>678<br>419<br>351<br>465<br>572<br>669<br>1008    | 4.0<br>7.1<br>4.0<br>3.2<br>4.6<br>5.9<br>7.0<br>10.8  | 18,418<br>3,771<br>2,378<br>5,208<br>6,440<br>3,237<br>4,926 |  |  |  |  |
| all dwellings                                                                                                                                                                    | 0.2                                                  | 7.7                                                                                                                    | 33.0                                                         | 39.9                                                                                                                       | 15.3                                                      | 4.0                                                                                                   | 49.8                                                         | 0.1                                           | 3.9                                                                                                                   | 21.9                                                                                                                       | 45.6                                                                                                                       | 24.6                                                                                                                    | 3.9                                                                                                                | 45.5                                                         | 404                                                       | 634                                                      | 6.6                                                    | 22,189                                                       |  |  |  |  |

Base: all dwellings

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.

Notes:

| Summary Statistics Table SST7.2: Energy Performance – areas <sup>(1)</sup> percentage/means of g |            |                |                                 |                                     |                                  |            |                      |            |                  |                                |                                    |                                     |             |              | of group                                                  |                                  |                                              |                              |
|--------------------------------------------------------------------------------------------------|------------|----------------|---------------------------------|-------------------------------------|----------------------------------|------------|----------------------|------------|------------------|--------------------------------|------------------------------------|-------------------------------------|-------------|--------------|-----------------------------------------------------------|----------------------------------|----------------------------------------------|------------------------------|
|                                                                                                  | ۸/R        | e<br>rat<br>(% | nergy e<br>ting (EE<br>% of all | efficienc<br>R) ban<br>in grou<br>F | y<br>d <sup>(2)</sup><br>p)<br>F | G          | mean<br>EER<br>(SAP) | ۸/B        | envi<br>ra<br>(% | ironme<br>ting (El<br>6 of all | ntal im<br>R) band<br>in grou<br>F | pact<br>d <sup>(2)</sup><br>p)<br>F | G           | mean<br>EIR  | mean<br>energy<br>use<br>(kWh/m <sup>2</sup><br>per year) | mean<br>energy<br>cost<br>(£ per | mean CO <sub>2</sub><br>emissions<br>(tonnes | all<br>dwellings<br>in group |
|                                                                                                  | A/D        | Ŭ              |                                 | -                                   |                                  | G          | rating               | A/D        | 0                |                                |                                    |                                     | U           | rating       | per year,                                                 | year,                            | /year/                                       | (0003)                       |
| area type:                                                                                       | 0.4        | 10.7           | 24.0                            | 22.0                                | 10 7                             |            | F1 0                 | 0.0        | 0.0              | 070                            | 20.0                               |                                     | 0.1         | 470          | 400                                                       | F.0.0                            | FO                                           | 045                          |
| city centre                                                                                      | 0.4        | 12.7           | 34.0<br>21.E                    | 33.9                                | 12.7                             | 5.7        | 51.3                 | 0.2        | 6.9<br>E.C       | 27.U                           | 38.0                               | 25.8                                | 2.1         | 47.9         | 428                                                       | 562                              | 5.0<br>E 7                                   | 040                          |
| other urban centre                                                                               | 0.3        | 10.0           | 31.5                            | 41.9                                | 12.7                             | 3.0        | 51.5                 | 0.1        | 0.0<br>2 7       | 22.0                           | 47.0                               | 22.U                                | 2. I<br>1 0 | 47.1         | 410                                                       | 504<br>500                       | 5.7                                          | 4,100                        |
| Suburban residential                                                                             | 0.1        | 7.0            | 30.3                            | 40.0                                | 13.1                             | 2.0        | 01.0                 | 0.0        | 3.7              | Z4.Z                           | 47.3                               | 22.3                                | 1.9         | 47.0         | 392                                                       | 000                              | 0.0                                          | 13,120                       |
| rural residential                                                                                | 0.0        | 5.2            | 29.4                            | 39.4                                | 19.4                             | 6.6        | 46.9                 | 0.0        | 2.3              | 17.6                           | 43.2                               | 30.2                                | 6.7         | 42.4         | 407                                                       | 736                              | 7.8                                          | 2,652                        |
| village centre                                                                                   | 0.0        | 1.9            | 19.6                            | 40.0                                | 28.0                             | 10.4       | 41.6                 | 0.1        | 1.1              | 9.5                            | 36.9                               | 39.7                                | 12.6        | 37.0         | 456                                                       | 844                              | 9.1                                          | 876                          |
| rural                                                                                            | 0.0        | 1.1            | 8.4                             | 23.5                                | 40.6                             | 26.2       | 31.5                 | 0.9        | 2.4              | 3.1                            | 20.2                               | 40.9                                | 32.5        | 28.6         | 492                                                       | 1,318                            | 14.4                                         | 729                          |
| all city and urban                                                                               | 0.0        | 10.0           | 01.0                            | 40.0                                | 10 7                             | 0.4        | F1 0                 | 0.1        | F 0              | 00.1                           | 40.0                               | 00 F                                | 0.1         | 470          | 410                                                       | F.0.0                            |                                              | 4 004                        |
| centres                                                                                          | 0.3        | 10.9           | 31.9                            | 40.8                                | 12.7                             | 3.4        | 51.3                 | 0.1        | 5.8              | 23.1                           | 46.3                               | 22.5                                | 2.1         | 47.2         | 412                                                       | 503                              | 5.7                                          | 4,804                        |
| suburban residentiai                                                                             | 0.1        | 7.8            | 30.3                            | 40.6                                | 13.1                             | 2.0        | 51.5                 | 0.0        | 3.7              | 24.Z                           | 47.9                               | 22.3                                | 12.2        | 47.0         | 392                                                       | 566                              | 0.0                                          | 13,128                       |
| all fulai                                                                                        | 0.0        | 3.8            | 23.8                            | 30.8                                | 24.8                             | 10.8       | 43.Z                 | 0.2        | Ζ.Ι              | 13.4                           | 38.0                               | 34.0                                | 12.3        | 38.9         | 432                                                       | 808                              | 9.2                                          | 4,237                        |
| deprived local areas                                                                             |            |                |                                 |                                     |                                  |            |                      |            |                  |                                |                                    |                                     |             |              |                                                           |                                  |                                              |                              |
| 10% most deprived                                                                                | 0.4        | 13.3           | 41.0                            | 33.4                                | 9.0                              | 2.8        | 54.2                 | 0.1        | 7.1              | 29.8                           | 46.8                               | 14.4                                | 1.7         | 50.2         | 389                                                       | 492                              | 4.9                                          | 2,082                        |
| 2nd                                                                                              | 0.3        | 13.1           | 38.3                            | 37.8                                | 8.3                              | 2.2        | 53.9                 | 0.1        | 6.6              | 27.5                           | 48.2                               | 15.8                                | 1.8         | 49.4         | 391                                                       | 502                              | 5.1                                          | 2,231                        |
| 3rd                                                                                              | 0.1        | 9.2            | 35.5                            | 39.7                                | 12.4                             | 3.1        | 51.4                 | 0.0        | 4.8              | 23.5                           | 47.6                               | 21.5                                | 2.6         | 47.2         | 403                                                       | 560                              | 5.7                                          | 2,264                        |
| 4th                                                                                              | 0.2        | 8.5            | 32.2                            | 38.8                                | 15.5                             | 4.9        | 49.5                 | 0.1        | 4.5              | 22.7                           | 43.5                               | 24.4                                | 4.8         | 45.5         | 418                                                       | 610                              | 6.3                                          | 2,209                        |
| 5th                                                                                              | 0.3        | 5.9            | 31.2                            | 40.2                                | 17.4                             | 5.1        | 48.3                 | 0.3        | 2.7              | 18.6                           | 46.0                               | 27.0                                | 5.4         | 43.9         | 423                                                       | 652                              | 6.8                                          | 2,225                        |
| 6th                                                                                              | 0.2        | 6.8            | 28.8                            | 40.3                                | 18.6                             | 5.3        | 47.6                 | 0.1        | 3.6              | 18.1                           | 43.6                               | 28.7                                | 5.9         | 43.5         | 416                                                       | 686                              | 7.2                                          | 2,241                        |
| 7th                                                                                              | 0.0        | 4.6            | 30.6                            | 40.0                                | 20.1                             | 4.6        | 47.7                 | 0.1        | 2.0              | 20.8                           | 42.3                               | 29.9                                | 5.0         | 43.3         | 412                                                       | 709                              | 7.4                                          | 2,257                        |
| 8th                                                                                              | 0.0        | 5.2            | 30.3                            | 40.2                                | 18.6                             | 5.6        | 47.5                 | 0.0        | 2.5              | 17.4                           | 46.9                               | 27.7                                | 5.5         | 43.3         | 410                                                       | 716                              | 7.5                                          | 2,354                        |
| 9th                                                                                              | 0.0        | 5.6            | 29.9                            | 44.0                                | 17.0                             | 3.6        | 48.7                 | 0.0        | 2.7              | 20.2                           | 43.7                               | 29.8                                | 3.6         | 44.0         | 396                                                       | 701                              | 7.4                                          | 2,293                        |
| 10% least deprived                                                                               | 0.1        | 5.4            | 32.6                            | 44.7                                | 15.0                             | 2.2        | 50.0                 | 0.1        | 2.6              | 21.3                           | 47.8                               | 25.5                                | 2.8         | 45.2         | 381                                                       | 704                              | 7.4                                          | 2,035                        |
| <b>deprived districts</b><br>deprived<br>other districts                                         | 0.2<br>0.1 | 8.6<br>7.0     | 35.2<br>31.4                    | 40.3<br>39.7                        | 12.9<br>17.0                     | 2.8<br>4.8 | 51.3<br>48.8         | 0.0<br>0.1 | 4.5<br>3.4       | 23.3<br>20.9                   | 47.8<br>44.1                       | 22.2<br>26.3                        | 2.1<br>5.3  | 47.0<br>44.4 | 401<br>407                                                | 578<br>675                       | 5.9<br>7.1                                   | 9,313<br>12,876              |

| Summary Sta        | tistic | sTab           | le SS                            | ST7.2:                          | Ene                          | rgy F | Perform              | nance | e – ai          | reas <sup>(</sup>             | <sup>1)</sup> (Co              | ont.)                            |     |             | percentage/means of group                    |                                  |                                              |                              |  |  |  |
|--------------------|--------|----------------|----------------------------------|---------------------------------|------------------------------|-------|----------------------|-------|-----------------|-------------------------------|--------------------------------|----------------------------------|-----|-------------|----------------------------------------------|----------------------------------|----------------------------------------------|------------------------------|--|--|--|
|                    |        | e<br>rat<br>(% | energy e<br>ting (EE<br>% of all | efficienc<br>ER) ban<br>in grou | ;y<br>d <sup>(2)</sup><br>p) |       | mean<br>EER<br>(SAP) |       | env<br>ra<br>(१ | ironme<br>ting (E<br>% of all | ental im<br>IR) ban<br>in grou | ipact<br>d <sup>(2)</sup><br>ip) |     | mean<br>EIR | mean<br>energy<br>use<br>(kWh/m <sup>2</sup> | mean<br>energy<br>cost<br>(£ per | mean CO <sub>2</sub><br>emissions<br>(tonnes | all<br>dwellings<br>in group |  |  |  |
|                    | A/B    | С              | D                                | E                               | F                            | G     | rating               | A/B   | С               | D                             | E                              | F                                | G   | rating      | per year)                                    | year) <sup>(3)</sup>             | /year)                                       | (000s)                       |  |  |  |
| regional groups:   |        |                |                                  |                                 |                              |       |                      |       |                 |                               |                                |                                  |     |             |                                              |                                  |                                              |                              |  |  |  |
| northern regions   | 0.1    | 6.8            | 36.4                             | 39.9                            | 13.1                         | 3.7   | 50.7                 | 0.1   | 3.2             | 23.4                          | 48.8                           | 21.0                             | 3.5 | 46.3        | 396                                          | 611                              | 6.3                                          | 6,432                        |  |  |  |
| south east regions | 0.2    | 10.1           | 32.1                             | 40.0                            | 14.3                         | 3.3   | 50.7                 | 0.1   | 5.1             | 22.6                          | 45.3                           | 24.3                             | 2.6 | 46.6        | 400                                          | 620                              | 6.4                                          | 6,791                        |  |  |  |
| rest of England    | 0.2    | 6.6            | 31.2                             | 39.9                            | 17.5                         | 4.6   | 48.5                 | 0.1   | 3.4             | 20.3                          | 43.6                           | 27.4                             | 5.3 | 44.1        | 413                                          | 662                              | 6.9                                          | 8,966                        |  |  |  |
| all homes          | 0.2    | 7.7            | 33.0                             | 39.9                            | 15.3                         | 4.0   | 49.8                 | 0.1   | 3.9             | 21.9                          | 45.6                           | 24.6                             | 3.9 | 45.5        | 404                                          | 634                              | 6.6                                          | 22,189                       |  |  |  |

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 Stat                                                                                                                          | nary Statistics Table SST7.3: Energy Performance – households <sup>(1)</sup> percentage/means of gro |                                  |                                      |                                      |                                      |                                 |                                      |                                 |                                 |                                      |                                                 |                                      |                                 |                                      |                                                           | s of group                                               |                                                        |                                           |
|---------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|---------------------------------|--------------------------------------|---------------------------------|---------------------------------|--------------------------------------|-------------------------------------------------|--------------------------------------|---------------------------------|--------------------------------------|-----------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|-------------------------------------------|
|                                                                                                                                       | A/B                                                                                                  | e<br>rat<br>(%<br>C              | nergy e<br>ting (EE<br>6 of all<br>D | fficienc<br>R) band<br>in grou<br>E  | y<br>J <sup>(2)</sup><br>p)<br>F     | G                               | mean<br>EER<br>(SAP)<br>rating       | A/B                             | envi<br>ra<br>(%                | fronme<br>ting (El<br>of all i<br>D  | ntal im <sub>l</sub><br>R) banc<br>in grou<br>E | pact<br>J <sup>(2)</sup><br>p)<br>F  | G                               | mean<br>EIR<br>rating                | mean<br>energy<br>use<br>(kWh/m <sup>2</sup><br>per year) | mean<br>energy<br>cost<br>(£ per<br>year) <sup>(3)</sup> | mean CO <sub>2</sub><br>emissions<br>(tonnes/<br>year) | all house-<br>holds in<br>group<br>(000s) |
| household<br>composition<br>couple under 60<br>couple 60 or over<br>couple with children<br>lone parent                               | 0.0<br>0.0<br>0.0<br>0.1                                                                             | 6.3<br>4.3<br>5.5<br>14.3        | 31.1<br>30.0<br>36.3<br>37.5         | 42.9<br>43.3<br>40.6<br>35.2         | 16.2<br>18.3<br>14.9<br>10.3         | 3.5<br>4.1<br>2.6<br>2.6        | 49.0<br>47.8<br>50.3<br>53.5         | 0.1<br>0.0<br>0.1<br>0.0        | 2.9<br>2.0<br>2.7<br>6.7        | 20.0<br>17.2<br>23.0<br>28.3         | 45.9<br>47.1<br>46.4<br>43.8                    | 27.5<br>28.7<br>24.8<br>18.2         | 3.6<br>4.8<br>3.1<br>3.0        | 44.6<br>43.4<br>45.5<br>48.9         | 404<br>405<br>377<br>382                                  | 649<br>707<br>692<br>529                                 | 6.7<br>7.5<br>7.2<br>5.4                               | 4,007<br>3,754<br>5,050<br>1,462          |
| multi-person h'hold<br>one person under 60<br>one person 60 or over                                                                   | 0.0<br>0.5<br>0.4                                                                                    | 7.5<br>13.4<br>9.2               | 32.2<br>31.8<br>33.4                 | 42.0<br>37.7<br>36.0                 | 14.2<br>12.3<br>15.6                 | 4.0<br>4.3<br>5.5               | 49.7<br>51.9<br>49.8                 | 0.0<br>0.1<br>0.0               | 4.3<br>7.3<br>4.8               | 21.2<br>26.3<br>22.6                 | 46.4<br>44.1<br>45.1                            | 24.3<br>18.6<br>22.6                 | 3.7<br>3.6<br>4.8               | 45.5<br>48.3<br>45.9                 | 399<br>426<br>431                                         | 640<br>513<br>573                                        | 6.6<br>5.1<br>5.8                                      | 1,527<br>2,413<br>3,167                   |
| <b>age of oldest</b><br>under 60 years<br>all over 60 years<br>all over 75 years                                                      | 0.1<br>0.2<br>0.2                                                                                    | 8.4<br>6.3<br>8.0                | 34.2<br>31.2<br>30.9                 | 40.2<br>40.3<br>38.0                 | 13.9<br>17.3<br>17.5                 | 3.1<br>4.8<br>5.4               | 50.7<br>48.5<br>48.6                 | 0.1<br>0.0<br>0.0               | 4.3<br>3.2<br>3.8               | 23.5<br>19.3<br>20.2                 | 45.6<br>46.2<br>44.6                            | 23.3<br>26.6<br>25.8                 | 3.3<br>4.7<br>5.6               | 46.3<br>44.4<br>44.5                 | 395<br>415<br>426                                         | 619<br>658<br>638                                        | 6.4<br>6.9<br>6.6                                      | 13,443<br>7,937<br>2,936                  |
| <b>age of youngest</b><br>under 5 years<br>under 16 years<br>16 years or more                                                         | 0.0<br>0.1<br>0.2                                                                                    | 8.2<br>7.6<br>7.6                | 38.4<br>37.1<br>31.4                 | 37.8<br>39.2<br>40.7                 | 13.2<br>13.7<br>15.8                 | 2.4<br>2.3<br>4.3               | 51.7<br>51.3<br>49.4                 | 0.1<br>0.1<br>0.1               | 4.2<br>3.6<br>4.0               | 26.0<br>24.9<br>20.8                 | 44.7<br>45.8<br>45.8                            | 23.0<br>22.8<br>25.2                 | 2.0<br>2.9<br>4.2               | 47.1<br>46.5<br>45.2                 | 382<br>377<br>412                                         | 606<br>646<br>629                                        | 6.3<br>6.7<br>6.5                                      | 2,548<br>6,122<br>15,258                  |
| income groups<br>1st quintile (lowest)<br>2nd quintile<br>3rd quintile<br>4th quintile<br>5th quintile (highest)<br>living in poverty | 0.1<br>0.3<br>0.2<br>0.0<br>0.0                                                                      | 9.1<br>10.0<br>7.1<br>5.8<br>5.9 | 36.5<br>33.8<br>33.3<br>32.4<br>29.3 | 37.2<br>38.3<br>41.9<br>42.0<br>41.9 | 12.8<br>13.0<br>14.4<br>16.0<br>19.7 | 4.1<br>4.6<br>3.0<br>3.7<br>3.2 | 51.0<br>51.0<br>50.2<br>49.1<br>48.3 | 0.0<br>0.2<br>0.1<br>0.0<br>0.0 | 4.5<br>5.6<br>3.7<br>2.5<br>2.8 | 24.1<br>23.5<br>20.7<br>21.4<br>20.2 | 47.2<br>46.4<br>47.9<br>45.5<br>42.1            | 20.2<br>21.0<br>24.1<br>26.3<br>30.9 | 3.9<br>3.4<br>3.5<br>4.3<br>4.1 | 46.7<br>47.0<br>45.7<br>44.6<br>43.7 | 408<br>406<br>408<br>401<br>388                           | 567<br>565<br>596<br>671<br>771                          | 5.8<br>5.8<br>6.2<br>7.0<br>8.2                        | 4,272<br>4,406<br>4,217<br>4,152<br>4,334 |
| in poverty<br>not in poverty                                                                                                          | 0.1<br>0.1                                                                                           | 9.3<br>7.3                       | 36.7<br>32.3                         | 37.1<br>40.9                         | 12.6<br>15.7                         | 4.1<br>3.7                      | 51.1<br>49.7                         | 0.0<br>0.1                      | 4.4<br>3.7                      | 24.8<br>21.4                         | 46.4<br>45.7                                    | 20.4<br>25.3                         | 3.9<br>3.8                      | 46.8<br>45.3                         | 407<br>401                                                | 568<br>647                                               | 5.8<br>6.7                                             | 3,665<br>17,715                           |

| Summary Stat                                    | Statistics Table SST7.3: Energy Performance – households <sup>(1)</sup> (Cont.) |                |                                 |                                     |                                   |            |                      |            |                  |                                     |                                    |                                     |            |              |                                                           | perce                            | percentage/means of group                     |                                          |  |  |
|-------------------------------------------------|---------------------------------------------------------------------------------|----------------|---------------------------------|-------------------------------------|-----------------------------------|------------|----------------------|------------|------------------|-------------------------------------|------------------------------------|-------------------------------------|------------|--------------|-----------------------------------------------------------|----------------------------------|-----------------------------------------------|------------------------------------------|--|--|
|                                                 | ۵/R                                                                             | e<br>rat<br>(% | nergy e<br>ting (EE<br>% of all | efficienc<br>R) ban<br>in grou<br>F | ;y<br>d <sup>(2)</sup><br>p)<br>F | G          | mean<br>EER<br>(SAP) | Δ/R        | envi<br>ra<br>(% | ironme<br>ting (El<br>% of all<br>D | ntal im<br>R) band<br>in grou<br>F | pact<br>d <sup>(2)</sup><br>p)<br>F | G          | mean<br>EIR  | mean<br>energy<br>use<br>(kWh/m <sup>2</sup><br>per year) | mean<br>energy<br>cost<br>(£ per | mean CO <sub>2</sub><br>emissions<br>(tonnes/ | all house<br>holds<br>in group<br>(000s) |  |  |
|                                                 |                                                                                 | Ŭ              |                                 | -                                   |                                   | 0          | rating               |            | •                |                                     | -                                  |                                     | G          | rating       | per year,                                                 | year,                            | youry                                         | (0003)                                   |  |  |
| workless households<br>workless<br>not workless | 0.3<br>0.1                                                                      | 13.0<br>6.8    | 35.4<br>32.9                    | 36.3<br>41.7                        | 11.7<br>15.2                      | 3.3<br>3.3 | 52.6<br>49.8         | 0.1<br>0.1 | 6.9<br>3.4       | 26.0<br>21.6                        | 45.0<br>46.1                       | 19.6<br>25.2                        | 2.4<br>3.6 | 48.4<br>45.3 | 396<br>396                                                | 548<br>653                       | 5.6<br>6.8                                    | 2,639<br>13,466                          |  |  |
| long term ill/<br>disability                    |                                                                                 |                |                                 |                                     |                                   |            |                      |            |                  |                                     |                                    |                                     |            |              |                                                           |                                  |                                               |                                          |  |  |
| yes                                             | 0.2                                                                             | 8.2            | 35.0                            | 38.8                                | 14.0                              | 3.7        | 50.6                 | 0.0        | 4.3              | 23.4                                | 46.6                               | 22.0                                | 3.7        | 46.2         | 406                                                       | 597                              | 6.2                                           | 6,413                                    |  |  |
| no                                              | 0.1                                                                             | 7.4            | 32.3                            | 40.8                                | 15.7                              | 3.8        | 49.6                 | 0.1        | 3.7              | 21.4                                | 45.5                               | 25.6                                | 3.9        | 45.3         | 401                                                       | 650                              | 6.7                                           | 14,967                                   |  |  |
| ethnicity of HRP                                |                                                                                 |                |                                 |                                     |                                   |            |                      |            |                  |                                     |                                    |                                     |            |              |                                                           |                                  |                                               |                                          |  |  |
| white                                           | 0.1                                                                             | 7.1            | 32.9                            | 40.2                                | 15.7                              | 4.0        | 49.5                 | 0.1        | 3.5              | 21.7                                | 45.6                               | 25.0                                | 4.1        | 45.2         | 404                                                       | 643                              | 6.7                                           | 19,471                                   |  |  |
| black                                           | 0.4                                                                             | 16.6           | 37.7                            | 35.8                                | 8.5                               | 1.0        | 55.3                 | 0.0        | 10.2             | 29.2                                | 45.1                               | 14.4                                | 1.1        | 51.1         | 382                                                       | 483                              | 4.9                                           | 613                                      |  |  |
| Asian                                           | 0.2                                                                             | 9.2            | 37.5                            | 43.1                                | 9.2                               | 0.9        | 53.1                 | 0.1        | 4.6              | 23.5                                | 50.8                               | 20.1                                | 0.8        | 48.2         | 377                                                       | 569                              | 5.9                                           | 815                                      |  |  |
| other                                           | 0.7                                                                             | 14.4           | 27.2                            | 41.1                                | 14.2                              | 2.4        | 52.4                 | 0.1        | 7.2              | 21.7                                | 47.0                               | 23.8                                | 0.3        | 48.2         | 400                                                       | 552                              | 5.6                                           | 481                                      |  |  |

|                              |     |      |      |      |      |     |      |     |      |      |      |      |     |      |     |     |     | 1              |
|------------------------------|-----|------|------|------|------|-----|------|-----|------|------|------|------|-----|------|-----|-----|-----|----------------|
| not workless                 | 0.1 | 6.8  | 32.9 | 41.7 | 15.2 | 3.3 | 49.8 | 0.1 | 3.4  | 21.6 | 46.1 | 25.2 | 3.6 | 45.3 | 396 | 653 | 6.8 | 13,466         |
| long term ill/<br>disability |     |      |      |      |      |     |      |     |      |      |      |      |     |      |     |     |     |                |
| yes                          | 0.2 | 8.2  | 35.0 | 38.8 | 14.0 | 3.7 | 50.6 | 0.0 | 4.3  | 23.4 | 46.6 | 22.0 | 3.7 | 46.2 | 406 | 597 | 6.2 | 6,413          |
| no                           | 0.1 | 7.4  | 32.3 | 40.8 | 15.7 | 3.8 | 49.6 | 0.1 | 3.7  | 21.4 | 45.5 | 25.6 | 3.9 | 45.3 | 401 | 650 | 6.7 | 14,967         |
| ethnicity of HRP             |     |      |      |      |      |     |      |     |      |      |      |      |     |      |     |     |     |                |
| white                        | 0.1 | 7.1  | 32.9 | 40.2 | 15.7 | 4.0 | 49.5 | 0.1 | 3.5  | 21.7 | 45.6 | 25.0 | 4.1 | 45.2 | 404 | 643 | 6.7 | <b>19,47</b> 1 |
| black                        | 0.4 | 16.6 | 37.7 | 35.8 | 8.5  | 1.0 | 55.3 | 0.0 | 10.2 | 29.2 | 45.1 | 14.4 | 1.1 | 51.1 | 382 | 483 | 4.9 | 613            |
| Asian                        | 0.2 | 9.2  | 37.5 | 43.1 | 9.2  | 0.9 | 53.1 | 0.1 | 4.6  | 23.5 | 50.8 | 20.1 | 0.8 | 48.2 | 377 | 569 | 5.9 | 815            |
| other                        | 0.7 | 14.4 | 27.2 | 41.1 | 14.2 | 2.4 | 52.4 | 0.1 | 7.2  | 21.7 | 47.0 | 23.8 | 0.3 | 48.2 | 400 | 552 | 5.6 | <b>48</b> 1    |
| all minority                 | 0.4 | 12.8 | 35.0 | 40.3 | 10.2 | 1.3 | 53.6 | 0.1 | 7.1  | 24.9 | 48.0 | 19.2 | 0.7 | 49.1 | 384 | 537 | 5.5 | 1,909          |
| length of residence          |     |      |      |      |      |     |      |     |      |      |      |      |     |      |     |     |     |                |
| less than 1 year             | 0.2 | 12.5 | 33.7 | 37.3 | 13.2 | 3.0 | 52.0 | 0.0 | 6.9  | 25.7 | 44.9 | 19.5 | 3.0 | 48.0 | 405 | 555 | 5.6 | 2,135          |
| 1-4 years                    | 0.3 | 11.7 | 37.1 | 37.5 | 10.8 | 2.6 | 52.9 | 0.1 | 6.6  | 27.3 | 43.4 | 20.4 | 2.1 | 48.6 | 386 | 569 | 5.8 | 4,365          |
| 5-9 years                    | 0.2 | 9.3  | 38.3 | 37.4 | 12.0 | 2.8 | 52.2 | 0.1 | 4.0  | 28.7 | 44.9 | 19.4 | 3.0 | 47.8 | 382 | 606 | 6.2 | 4,452          |
| 10-19 years                  | 0.1 | 6.3  | 33.5 | 40.8 | 16.1 | 3.2 | 49.6 | 0.1 | 3.3  | 21.0 | 46.6 | 25.5 | 3.5 | 45.0 | 401 | 660 | 6.9 | 4,409          |
| 20-29 years                  | 0.1 | 3.1  | 25.6 | 46.4 | 20.1 | 4.8 | 46.2 | 0.1 | 1.5  | 12.4 | 49.3 | 31.5 | 5.2 | 41.8 | 421 | 706 | 7.4 | 2,983          |
| 30 or more years             | 0.0 | 2.2  | 25.9 | 43.6 | 21.4 | 7.0 | 44.7 | 0.0 | 0.7  | 12.5 | 46.6 | 33.1 | 7.1 | 40.7 | 438 | 714 | 7.5 | 3,035          |
| all households               | 0.1 | 7.6  | 33.1 | 40.2 | 15.2 | 3.7 | 49.9 | 0.1 | 3.8  | 22.0 | 45.8 | 24.5 | 3.8 | 45.6 | 402 | 634 | 6.6 | 21,380         |

#### 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 SST7.4: Energy Performance – heating and insulation characteristics of homes <sup>1</sup> |                   |                   |                                    |                                    |                                   |                     |                                |                   |                     |                                    |                                   |                                     |                     |                       |                                                               |                                                          |                                                        |                                        |
|--------------------------------------------------------------------------------------------------------------------|-------------------|-------------------|------------------------------------|------------------------------------|-----------------------------------|---------------------|--------------------------------|-------------------|---------------------|------------------------------------|-----------------------------------|-------------------------------------|---------------------|-----------------------|---------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|----------------------------------------|
|                                                                                                                    | percentage/means  |                   |                                    |                                    |                                   |                     |                                |                   |                     |                                    |                                   |                                     |                     |                       | s of group                                                    |                                                          |                                                        |                                        |
|                                                                                                                    | A/B               | en<br>rati<br>(%  | nergy e<br>ng (EE<br>of all i<br>D | fficiend<br>R) band<br>n grou<br>E | ;y<br>d <sup>(2)</sup><br>p)<br>F | G                   | mean<br>EER<br>(SAP)<br>rating | A/B               | envir<br>rati<br>(% | onmer<br>ing (Elf<br>of all i<br>D | ntal im<br>R) banc<br>n grou<br>E | pact<br>I <sup>(2)</sup><br>p)<br>F | G                   | mean<br>EIR<br>rating | mean<br>energy<br>use<br>(kWh<br>/m <sup>2</sup> per<br>year) | mean<br>energy<br>cost<br>(£ per<br>year) <sup>(3)</sup> | mean CO <sub>2</sub><br>emissions<br>(tonnes<br>/year) | all<br>dwellings<br>in group<br>(000s) |
| heating type:<br>central heating<br>storage heaters<br>room heaters                                                | 0.2<br>0.0<br>0.0 | 8.1<br>6.2<br>0.0 | 35.0<br>20.2<br>5.8                | 41.4<br>29.8<br>22.8               | 13.4<br>28.7<br>36.0              | 1.9<br>15.1<br>35.3 | 51.4<br>40.9<br>27.3           | 0.1<br>0.0<br>0.2 | 4.2<br>0.9<br>0.5   | 22.8<br>18.0<br>7.6                | 46.8<br>34.6<br>36.7              | 23.5<br>31.0<br>38.6                | 2.6<br>15.4<br>16.5 | 46.5<br>38.6<br>34.8  | 381<br>610<br>592                                             | 622<br>660<br>894                                        | 6.5<br>6.6<br>7.7                                      | 19,862<br>1,552<br>775                 |
| <b>heating fuel:</b><br>gas fired system<br>oil fired system<br>solid fuel fired                                   | 0.1<br>0.0        | 7.8<br>0.6        | 36.2<br>11.3                       | 42.5<br>32.8                       | 12.4<br>45.0                      | 1.0<br>10.3         | 52.0<br>37.5                   | 0.0<br>0.0        | 4.0<br>0.0          | 23.2<br>3.7                        | 49.0<br>22.0                      | 22.9<br>51.6                        | 0.8<br>22.7         | 47.3<br>30.2          | 381<br>392                                                    | 595<br>1158                                              | 6.1<br>13.6                                            | 18,728<br>946                          |
| system<br>electrical system<br>communal                                                                            | 0.0               | 0.0               | 1.6<br>17.2                        | 7.7<br>27.2                        | 34.3<br>28.1                      | 56.4<br>22.4        | 18.9<br>37.3                   | 2.8               | 4.9<br>0.9          | 1.6<br>17.1                        | 2.1<br>34.5                       | 13.1<br>32.9                        | 75.5<br>14.6        | 15.8<br>38.5          | 656<br>609                                                    | 1181<br>724                                              | 14.5<br>6.6                                            | 322<br>1,862                           |
| cavity walls and<br>insulation:<br>cavity with<br>insulation                                                       | 0.3               | 13.1              | 50.5                               | 30.8                               | 4.5                               | 0.9                 | 57.0                           | 0.0               | 6.8                 | 35.1                               | 48.9                              | 4.3                                 | 0.9                 | 52.3                  | 338                                                           | 525                                                      | 5.3                                                    | 7,267                                  |
| cavity uninsulated solid wall                                                                                      | 0.2<br>0.0        | 7.8<br>1.8        | 29.3<br>18.4                       | 44.4<br>44.3                       | 15.1<br>27.2                      | 3.3<br>8.2          | 49.6<br>42.3                   | 0.1<br>0.0        | 3.7<br>0.9          | 20.9<br>8.9                        | 45.8<br>41.9                      | 26.3<br>40.2                        | 3.3<br>8.1          | 45.3<br>38.4          | 408<br>473                                                    | 619<br>772                                               | 6.4<br>8.1                                             | 8,260<br>6,662                         |

## Summary Statistics Table SST7.4: Energy Performance – heating and insulation characteristics of homes<sup>1</sup> (Cont.)

| lofts and           | energy efficiency<br>rating (EER) band <sup>(2)</sup><br>(% of all in group)<br>A/B C D E F G |      |      |      |      |      | mean<br>EER<br>(SAP)<br>rating | A/B | envir<br>rati<br>(%<br>C | onmer<br>ing (Elf<br>of all i<br>D | ntal imp<br>R) band<br>n grou<br>E | pact<br>I <sup>(2)</sup><br>p)<br>F | G    | mean<br>EIR<br>rating | mean<br>energy<br>use<br>(kWh<br>/m <sup>2</sup> per<br>year) | mean<br>energy<br>cost<br>(£ per<br>year) <sup>(3)</sup> | mean CO <sub>2</sub><br>emissions<br>(tonnes<br>/year) | all<br>dwellings<br>in group<br>(000s) |
|---------------------|-----------------------------------------------------------------------------------------------|------|------|------|------|------|--------------------------------|-----|--------------------------|------------------------------------|------------------------------------|-------------------------------------|------|-----------------------|---------------------------------------------------------------|----------------------------------------------------------|--------------------------------------------------------|----------------------------------------|
| none                | 0.0                                                                                           | 0.4  | 10.6 | 42.5 | 32.8 | 13.8 | 37.1                           | 0.0 | 0.2                      | 3.2                                | 36.1                               | 45.2                                | 15.1 | 33.7                  | 524                                                           | 894                                                      | 9.4                                                    | 735                                    |
| less than 50mm      | 0.0                                                                                           | 1.0  | 14.0 | 46.3 | 33.8 | 4.9  | 41.5                           | 0.0 | 0.3                      | 6.5                                | 38.8                               | 47.1                                | 7.4  | 37.1                  | 468                                                           | 756                                                      | 8.1                                                    | 577                                    |
| 50 to 99mm          | 0.0                                                                                           | 1.9  | 23.5 | 49.0 | 20.6 | 5.0  | 45.5                           | 0.0 | 0.9                      | 12.0                               | 47.8                               | 34.4                                | 5.0  | 41.1                  | 437                                                           | 706                                                      | 7.4                                                    | 4,253                                  |
| 100 to 199mm        | 0.0                                                                                           | 6.2  | 34.4 | 41.4 | 14.4 | 3.5  | 49.9                           | 0.1 | 2.9                      | 21.2                               | 47.9                               | 24.3                                | 3.7  | 45.3                  | 395                                                           | 647                                                      | 6.7                                                    | 10,085                                 |
| 200mm or more       | 0.2                                                                                           | 11.2 | 41.7 | 33.4 | 10.9 | 2.6  | 53.4                           | 0.1 | 5.6                      | 30.6                               | 43.5                               | 17.5                                | 2.6  | 49.0                  | 364                                                           | 596                                                      | 6.1                                                    | 4,258                                  |
| no loft             | 1.0                                                                                           | 22.7 | 39.9 | 26.1 | 7.1  | 3.2  | 57.3                           | 0.3 | 12.6                     | 37.1                               | 40.5                               | 8.3                                 | 1.3  | 54.2                  | 404                                                           | 402                                                      | 3.8                                                    | 2,281                                  |
| all dwellings       | 0.2                                                                                           | 7.7  | 33.0 | 39.9 | 15.3 | 4.0  | 49.8                           | 0.1 | 3.9                      | 21.9                               | 45.6                               | 24.6                                | 3.9  | 45.5                  | 404                                                           | 634                                                      | 6.6                                                    | 22,189                                 |
| 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 1.1: Decent homes treatment scale: derivation of the scale and cavity wall 'fillability'

## **Derivation of the scale**

Details of the criteria on which 'treatability' are set out below

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, e.g. 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.

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.

Details of how the treatment scale is applied to each of the decent homes criteria is set out below:

## **Modernisation**

No dwellings are defined as 'inappropriate' or 'not feasible'. The following are all classed as **'difficult' to treat**:

- Dwellings failing on kitchen 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<sup>2</sup> 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 e.g. 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 is 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 (i.e. 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 50m2 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 CWI required but falls into one of the 'complex to fill' categories (see Cavity Wall 'Fillability' below).

The following are classed as 'not feasible' to treat:

• Dwelling requires installation of CWI but falls into one of the 'do not fill' categories (see Cavity Wall 'Fillability' below)

## 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

## **Cavity wall 'fillability'**

There are some general assumptions made for this assessment:

- 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 than 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.

## Chapter 2: Energy performance of the housing stock

This chapter assesses the energy performance of the housing stock in terms of the energy efficiency (cost effectiveness) and carbon dioxide emissions associated with its heating, lighting and ventilation characteristics.

There are four parts to this chapter. The first section looks at the current performance of the housing stock in terms of energy efficiency ratings and carbon emissions in 2007. The second section assesses the change in energy and carbon saving insulation and heating measures that has occurred over the last 11 years. The third section investigates the potential in the housing stock for further cost effective improvements that can be readily carried out with standard energy upgrades. The final fourth section looks at the improvement that could be expected in the performance of the housing stock if the additional energy saving measures considered in the third section were installed.

## **Key findings:**

- The energy efficiency rating of the housing stock steadily improved in value from 42 SAP points in 1996 to 50 in 2007. In recent years the private rented sector has closely matched the average rating of owner occupied stock, improving from a three point gap in 1996. The gap between local authority and RSL dwellings has also narrowed slightly, although the latter still had the highest average rating at almost 60 SAP points in 2007.
- The heating and lighting energy needs of homes were associated with carbon dioxide emissions that averaged 6.6 tonnes/year in 2007. These notional emissions ranged from 4.0 tonnes/year in the RSL tenure to 7.3 tonnes/year in owner occupied homes, the difference arising from a combination of better energy efficiency measures in RSL stock and the larger size of privately owned dwellings.
- The social sector accounted for only 11% of the total CO<sub>2</sub> emissions related to these heating and lighting requirements (16.4 million tonnes/year) while the private sector accounted for the remaining 89% (at 129.5 million tonnes/year).
- Dwelling age is a strong indicator of energy efficiency, with pre-1919 dwellings averaging 24 SAP points fewer than post 1990 homes in 2007, whilst their average notional CO<sub>2</sub> emissions for heating and lighting per dwelling were twice those of post 1990 stock. Pre-1919 owner occupied homes accounted for 23% of total notional CO<sub>2</sub> emissions, whilst comprising only 15% of the total number of homes in 2007.
- In terms of the location of homes, average SAP decreases and CO<sub>2</sub> emissions increase from more urban to more rural areas. This is linked to a number of factors, including the larger size of rural homes and their typically earlier construction, which makes less energy efficient measures such as solid walls and non-mains gas heating more prevalent.

- The proportion of homes with cavity walls was 70% in 2007, with little increase in recent years due to the vast majority of solid walled stock being retained each year. However, the proportion of cavity walls containing insulation increased from 22% to 47% between 1996 and 2007.
- The number and proportion of lofts being well insulated is increasing steadily, with 25% in 2003 having at least 150mm of insulation, rising to 36% in 2007. However, there has been a constant 4% which are un-insulated, the majority of which are in pre-1945 homes.
- Recent years have seen a rapid increase in the installation of the most efficient condensing boiler models, due to changes in building regulations. These have typically replaced standard boilers or back boilers. The seasonal efficiencies of condensing boilers range from 86%-92%, compared with efficiencies of around 78%-85% for non-condensing models.
- The Energy Performance Certificate methodology for recommending upgrades to energy efficiency measures indicates that the greatest scope for improvement is in installing condensing boilers where the current system is non-condensing, with 80% of dwellings using boiler-driven systems requiring this. Around 45% of dwellings with accessible lofts and those with cavity walls require loft insulation top-ups or cavity wall insulation respectively.
- Almost all EPC recommended measures have greater improvement potential in the private sector.
- In total 20.2 million homes would benefit from improvement measures. As an approximation, the total cost of carrying out these improvements on the 20.2 million homes is around £30 billion. This equates to an average expenditure of £1,500 for each of the 20.2 million homes that would benefit.
- The effect of implementing all the improvement recommendations in the 2007 housing stock would reduce total notional CO<sub>2</sub> emissions by 33 million tonnes, a reduction of 22%. There would also be an average reduction of 10 SAP points, whilst the average annual fuel costs, calculated through the SAP methodology (based on 2005 fuel prices) would fall by £128. The greatest savings would be in owner occupied stock and rural dwellings.

## Energy performance of homes in 2007

The key measures of energy performance of the housing stock used throughout this chapter are the energy efficiency (SAP) rating and carbon dioxide ( $CO_2$ ) emissions, Box 1.

#### Box 1: Energy Performance Indicators

**Energy Efficiency Rating:** The SAP rating is based on each dwelling's 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 any 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 energy efficiency rating is also presented in an A to G banding system for an Energy Performance Certificate, where Energy Efficiency Rating (EER) Band A represents low energy costs (i.e. the most efficient band) and EER Band G represents high energy costs (the least energy efficient band).

**Carbon Dioxide Emissions:** The carbon dioxide  $(CO_2)$  emissions are derived from space heating, water heating, ventilation and lighting, less any emissions saved by energy generation and are measured in tonnes per year. This chapter largely deals with the average emissions per dwelling, but also covers the total emissions for different subsections of the stock.

It is important to emphasize that this assessment of the housing stock is not based on actual energy consumption and emissions, but on the consumption (and resulting emissions) required under a standard occupancy and standard heating pattern for each home. This enables the performance of the housing stock to be assessed on a comparable basis (between sections of the stock and over time), independently of the heating behaviours of individual households. However this also means that the effect of additional energy efficiency measures on performance are **potential** improvements that additionally depend on households modifying the way they heat their homes in response to greater efficiency for cost and emission savings to be realised. Actual consumption reductions (and associated emissions) may 'lag' behind actual improvements.

In 2007, the average SAP rating for all homes was 50 (upper Energy Efficiency Rating Band E), up by one point since 2006, four points since 2001 and eight points since 1996, Figure 2.1. This steady increase indicates a constant rate of improvement in domestic energy efficiency, driven largely by energy efficiency improvements to existing homes (see the next section of this chapter) and the impact of new homes constructed under Building Regulations requirements for energy efficiency.

In 2007 the average energy efficiency (SAP) rating of social housing was 58 (Energy Efficiency Rating Band D), some 10 points higher than that for either the owner occupied or privately rented stock (Energy Efficiency Rating Band E), Table 2.1. The main factors behind this difference are the higher levels of insulation found in social rented homes (due in part to its more recent construction) and the types of dwelling that typically comprise each tenure. Private homes are more likely to be detached or semi-detached houses, which have a large proportion of surface area exposed to the outside air leading to higher heat losses and lower SAP ratings. The inverse is true for flats, which make up a larger proportion of social sector


homes. The RSL sector is on average the most energy efficient (with an average SAP nearing 60).

| Table 2.1: Changes in energy efficiency (SAP) ratings by tenure, 1996-2007 |      |      |      |      |      |      |      |  |  |
|----------------------------------------------------------------------------|------|------|------|------|------|------|------|--|--|
|                                                                            | 1996 | 2001 | 2003 | 2004 | 2005 | 2006 | 2007 |  |  |
| owner occupied                                                             | 41.1 | 44.4 | 45.0 | 45.6 | 46.1 | 46.9 | 48.1 |  |  |
| private rented                                                             | 37.9 | 41.9 | 44.4 | 45.7 | 46.0 | 46.6 | 48.1 |  |  |
| local authority                                                            | 45.7 | 49.6 | 52.0 | 53.9 | 55.3 | 55.8 | 56.2 |  |  |
| RSL                                                                        | 50.9 | 56.4 | 56.7 | 57.3 | 58.9 | 59.3 | 59.5 |  |  |
| all private                                                                | 40.7 | 44.1 | 44.9 | 45.6 | 46.1 | 46.8 | 48.1 |  |  |
| all social                                                                 | 46.8 | 51.9 | 53.9 | 55.3 | 56.9 | 57.4 | 57.8 |  |  |
| all tenures                                                                | 42.1 | 45.7 | 46.6 | 47.4 | 48.1 | 48.7 | 49.8 |  |  |
| Base: all dwellings                                                        |      |      |      |      |      |      |      |  |  |

Energy efficiency and carbon dioxide emissions are influenced by similar factors such as the dwelling shape, its construction materials, the presence of insulation and the types of system and fuel used for heating. The SAP rating however is based on energy costs per square metre of floor area whereas the carbon emission parameter represents emissions for the whole home. Due to this difference the size of the property has a more pronounced effect on a homes  $CO_2$  emissions generally larger homes use more fuel for heating, lighting, water heating and ventilation. To show the effect of size, small homes, with floor areas of less than  $50m^2$ , had a mean SAP rating of 56 in 2007, some 10 points higher than those homes that are at least  $110m^2$  in area, in comparison, the average  $CO_2$  emissions for small homes was 3.2 tonnes/year compared with 10.8 tonnes/year for the largest homes.

While average CO<sub>2</sub> emissions per dwelling for the whole stock were 6.6 tonnes/year in 2007, RSL and local authority stock (4.0 and 4.4 tonnes/year respectively) emitted considerably less than private rented dwellings (6.1 tonnes/year) or owner occupied homes (7.3 tonnes/year), Figure 2.2 and Table 2.2<sup>1</sup>. The typically smaller size of social housing is a substantial factor here, along with the energy related factors as previously mentioned.

In terms of heating, lighting and ventilation, the social sector accounted for only 11% of the total  $CO_2$  emissions related to these requirements (16.4 million tonnes  $CO_2$ /yr) while the private sector accounted for the remaining 89% at 129.5 million tonnes  $CO_2$ /yr, Table 2.2.



<sup>1</sup> The SAP methodology on which EHCS estimates are based tends to provide a higher estimate of energy requirements and associated emissions for heating, lighting and ventilating homes than might otherwise be derived from estimates based on actual household energy consumption. For example, a number of sources indicate that UK households cause about 6 tonnes of CO<sub>2</sub> each year, compared with the survey's 2007 estimate of 6.6 tonnes/year notionally arising from the above requirements alone. This is primarily because the assumed heating regime (achieving a temperature of 21°C in the living area of the dwelling and 18°C in the rest of the dwelling for a standard number of hours), and the assumed hot water and lighting requirements (depending on a level of occupancy determined by the floor area of the home rather than actual occupancy) are more likely to over estimate than under estimate actual energy consumption for most homes. Such standardising assumptions are necessary to be able to compare the energy performance of one part of the housing stock with another over time.

| emissions by tenure, 2007                                  |                              |                                                     |                                                                                |  |  |  |  |  |  |
|------------------------------------------------------------|------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------|--|--|--|--|--|--|
|                                                            | average SAP                  | average CO <sub>2</sub> per<br>dwelling (tonnes/yr) | total CO <sub>2</sub> emissions for<br>the whole tenure<br>(million tonnes/yr) |  |  |  |  |  |  |
| owner occupied<br>private rented<br>local authority<br>RSL | 48.1<br>48.1<br>56.2<br>59.5 | 7.3<br>6.1<br>4.4<br>4.0                            | 112.9<br>16.6<br>8.7<br>7.7                                                    |  |  |  |  |  |  |
| all private<br>all social<br><b>all tenures</b>            | 48.1<br>57.8<br><b>49.8</b>  | 7.1<br>4.2<br><b>6.6</b>                            | 129.5<br>16.4<br><b>145.8</b>                                                  |  |  |  |  |  |  |
| Base: all dwellings                                        |                              |                                                     |                                                                                |  |  |  |  |  |  |

### Table 2.2: Average energy efficiency rating (SAP) and carbon dioxide ( $CO_{2}$ )

Flats typically have fewer faces and a smaller area exposed to the outside compared to houses, leading to reduced heat losses. On average flats had a mean energy efficiency rating of 57 in 2007 compared with only 48 for all houses. However purpose built flats on average achieved much higher SAP ratings (60 for low rise purpose built flats) than typically older converted flats (SAP rating of 44), Figure 2.3 and Table 2.3. Average SAP ratings of house types ranged from 46 for bungalows, with high heat losses, to 53 for mid terraces, which benefit from adjoining heated dwellings on either side.

A combination of typical age, size and shape gave annual CO<sub>2</sub> emissions of 9.9 tonnes for detached houses - almost three times those of low-rise purpose built flats, which are lesslikely to have been built pre-1945, when solid walls were still predominant, Table 2.3.



| $(CO_2)$ by dwelling type, 2007 |             |                                                     |                                                                                |  |  |  |  |  |  |
|---------------------------------|-------------|-----------------------------------------------------|--------------------------------------------------------------------------------|--|--|--|--|--|--|
|                                 | average SAP | average CO <sub>2</sub> per<br>dwelling (tonnes/yr) | total CO <sub>2</sub> emissions<br>for the whole tenure<br>(million tonnes/yr) |  |  |  |  |  |  |
| end terrace                     | 47.2        | 6.6                                                 | 13.8                                                                           |  |  |  |  |  |  |
| mid terrace                     | 53.4        | 5.4                                                 | 22.4                                                                           |  |  |  |  |  |  |
| semi detached                   | 47.3        | 6.9                                                 | 42.3                                                                           |  |  |  |  |  |  |
| detached                        | 46.9        | 9.9                                                 | 39.3                                                                           |  |  |  |  |  |  |
| bungalow                        | 46.0        | 6.2                                                 | 13.1                                                                           |  |  |  |  |  |  |
| converted flat                  | 44.3        | 5.8                                                 | 4.4                                                                            |  |  |  |  |  |  |
| purpose built flat, low rise    | 59.9        | 3.5                                                 | 9.3                                                                            |  |  |  |  |  |  |
| purpose built flat, high rise   | 57.4        | 4.0                                                 | 1.3                                                                            |  |  |  |  |  |  |
| all dwellings                   | 49.8        | 6.6                                                 | 145.8                                                                          |  |  |  |  |  |  |
| Base: all dwellings             |             |                                                     |                                                                                |  |  |  |  |  |  |
|                                 |             | 1 1 10 2 10                                         | 1. 6. 11                                                                       |  |  |  |  |  |  |

### Table 2.3: Average energy efficiency (SAP) and carbon dioxide emissions (CO<sub>2</sub>) by dwelling type, 2007

Note: a more detailed breakdown of SAP and CO<sub>2</sub> emissions by dwelling type and tenure can be found in Appendix 2.1, Annex Table 2A.1.

Energy performance is strongly related to the age of homes, Figure 2.4 and Appendix 2.1, Annex Table 2A.1. Around 20% of the current housing stock was built pre-1919 and this group had by far the lowest SAP ratings with an average of 40 and the highest emissions with 9.0 tonnes/year. This can be compared with post 1990 homes with an average SAP rating of 65 and emissions of just 4.5 tonnes/year – half the emissions of the oldest homes. Although there are differences in typical size of older and newer homes, these differences are not as pronounced as the differences in their profiles in terms of dwelling type. In consequence, the substantial improvement in  $CO_2$  emissions in newer homes arises more from the building fabric, insulation and heating system efficiencies than from a reduction in size.



### Table 2.4: Average energy efficiency (SAP) rating and carbon dioxide $(CO_2)$ emissions by construction date, 2007

|                     | average SAP | average CO <sub>2</sub> per<br>dwelling (tonnes/yr) | total CO <sub>2</sub> emissions for<br>the whole tenure<br>(million tonnes/yr) |  |  |  |  |  |
|---------------------|-------------|-----------------------------------------------------|--------------------------------------------------------------------------------|--|--|--|--|--|
| pre-1919            | 40.4        | 9.0                                                 | 43.0                                                                           |  |  |  |  |  |
| 1919-44             | 45.5        | 7.2                                                 | 27.8                                                                           |  |  |  |  |  |
| 1945-64             | 49.5        | 6.2                                                 | 26.9                                                                           |  |  |  |  |  |
| 1965-80             | 52.4        | 5.7                                                 | 27.3                                                                           |  |  |  |  |  |
| 1981-90             | 56.6        | 5.1                                                 | 9.5                                                                            |  |  |  |  |  |
| post 1990           | 64.7        | 4.5                                                 | 11.3                                                                           |  |  |  |  |  |
| all dwellings       | 49.8        | 6.6                                                 | 145.8                                                                          |  |  |  |  |  |
| Base: all dwellings |             |                                                     |                                                                                |  |  |  |  |  |

Note: a more detailed breakdown of SAP and  $CO_2$  emissions by construction date and tenure can be found in Appendix 2.1, Annex Table 2A.2.

Slight differences emerge in average energy performance between homes in different locations<sup>2</sup>, which can be largely explained by the housing stock profile (e.g. age and type of home) found in each region or type of location<sup>3</sup>. The highest SAP (51) and lowest  $CO_2$  (around 6.3 tonnes/year) averages were found in the northern regions, which have above average levels of insulation, and in south east regions, which contain a higher proportion of flats and many newer homes than the rest of the country (Appendix 2.1, Annex Table 2A.3). The rest of England stock was slightly below average with a mean SAP of 49 and 6.9 tonnes/year of  $CO_2$ .

Generally, the housing stock in rural areas had the worst energy performance, Figure 2.5 and Table 2.5. The most isolated rural dwellings had an average SAP rating of just 32 with village based stock averaging 42, whilst their  $CO_2$  emissions were 14.4 and 9.1 tonnes/year respectively. This compares unfavourably with SAP ratings of around 51 and  $CO_2$  emission range of 5.6 – 6.0 tonnes/year for homes located in city or suburban areas. The low ratings of rural homes are related to the greater preponderance of older, larger properties in these areas, often built with solid walls and no access to mains gas, the fuel which combines low cost and low  $CO_2$  emissions most effectively. In comparison, a much higher proportion of flats are found in cities and the newer suburban stock, along with dwellings more likely to be from the better insulated social sector.

<sup>&</sup>lt;sup>2</sup> It should be noted that the SAP calculation is independent of regional temperature ranges, so differences in SAP and CO<sub>2</sub> derive from observed differences in heating and insulation as observed by EHCS.

<sup>&</sup>lt;sup>3</sup> A detailed breakdown of SAP and CO<sub>2</sub> can be found in Appendix 2.1, Annex Table 2A.3.



## Table 2.5: Average energy efficiency (SAP) rating and carbon dioxide (CO<sub>2</sub>) emissions by area type, 2007

|                      | average SAP | average CO <sub>2</sub> per<br>dwelling (tonnes/yr) | total CO <sub>2</sub> emissions<br>for the whole tenure<br>(million tonnes/γr) |
|----------------------|-------------|-----------------------------------------------------|--------------------------------------------------------------------------------|
| city centre          | 51.3        | 5.6                                                 | 3.6                                                                            |
| other urban centre   | 51.3        | 5.7                                                 | 23.7                                                                           |
| suburban residential | 51.5        | 6.0                                                 | 79.4                                                                           |
| rural residential    | 46.9        | 7.8                                                 | 20.6                                                                           |
| village centre       | 41.6        | 9.1                                                 | 8.0                                                                            |
| rural                | 31.5        | 14.4                                                | 10.5                                                                           |
| all dwellings        | 49.8        | 6.6                                                 | 145.8                                                                          |

**Base: all dwellings** 

Note: a more detailed breakdown of SAP and CO<sub>2</sub> emissions by construction date and tenure can be found in Appendix 2.1, Annex Table 2A.4.

#### Improvement measures 1996 to 2007

This section looks at trends over the last 11 years in the installation and incidence of standard energy and carbon saving measures, including cavity wall insulation, loft insulation and more efficient boiler models, which have driven much of the improvement in energy performance. These measures are currently considered under the list of recommendations used for Energy Performance Certificates<sup>4</sup> as relatively cost-effective upgrades, rather than the more substantial, and more expensive, low-carbon technologies, e.g. micro wind turbine and solar panels. This section also looks at double glazing, which while expensive and relatively cost ineffective in terms of improved energy performance has nevertheless been extensively used to replace existing windows for a range of reasons.

In 2007 around 15.5 million dwellings had predominantly cavity walls, which represent 70% of the housing stock, Figure 2.6. This has increased from 13.2 million (65% of the housing stock) in 1996. In 1996, 10.4 million cavity walls were unfilled, reducing to 8.3 million unfilled cavities in 2007.

Of the cavity walled stock, almost 7.3 million were also insulated in 2007, representing 47% of all homes with cavity walls. This frequency has risen from 2.9 million in 1996 (22% of all cavities at that time), a net increase (including new homes) of 4.4 million homes over the period 1996 to 2007 (and around 1.9 million since 2003).

The pattern of change in the proportion of cavity walled stock is similar for all tenures (Appendix 2.1, Annex Table 2A.5) but there is a clear difference in the percentage of homes with cavity walls between private rented stock and other tenures, Figure 2.7. This demonstrates the typical older age of these private rented dwellings, with the large quantity of solid walled stock still comprising almost half of this category in 2007.



<sup>4</sup> The Energy Performance Certificate (EPC) 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 pattern of cavity wall insulation incidence, as a proportion of homes with cavity walls, emphasises the difference between tenures, with the difference between the private and social sectors (the private rented stock in particular), growing since 1996, Figure 2.8. In 2007, 55% of social sector homes with cavity walls were insulated and 32% of private rented homes with cavity walls were insulated. This represents a difference of 23% in 2007 between the social and private rented homes, which increased from 10% in 1996. Owner occupied homes have seen the greatest increase in recent years from 38% of cavity walls insulated in 2005 to 47% in 2007.



In 2007, around 2.3 million homes (10% of the stock) were lower or mid-floor flats with dwellings above them, which therefore have no need for ceiling or roof insulation. Of the remaining 90% of homes in England, 0.7 million (4%) had no loft insulation present, whilst a further 24% had less than 100mm and some 36% had 150mm or more (Appendix 2.1, Annex Table 2A.7). Current Building Regulations require loft insulation of approximately 250mm to 270mm (depending on roof construction and insulation type) for new homes, suggesting that a high proportion of existing homes would benefit from some form of roof insulation top-up.

Since 2003 the proportion of homes with no loft insulation has shown little change, whilst homes with less than 100mm and 100-150mm decreased and homes with loft insulation greater than 150mm increased, Figure 2.9.<sup>5</sup> The proportion of dwellings with at least 150mm of insulation increased from 25% in 2003 to 36% in 2007. This gradual increase appears to relate to insulation top-ups in homes which already had thinner layers.



The general increase in lofts with 150mm or more of insulation since 2003 has occurred across all tenures, although local authority homes show a slower rate than the RSL stock, Figure 2.10. The greatest potential for top-ups remains in the private sector, particularly the private rented sector.

<sup>&</sup>lt;sup>5</sup> Due to the way in which loft data has been collected by the EHCS, comparable information on loft insulation depth is not available for all the survey years as used elsewhere in this chapter.



Figure 2.10: Dwellings with loft insulation greater than 150mm by tenure,

The use of more efficient boiler models has increased over time, spurred through recent changes in Building Regulations which require almost all new boiler units to be condensing, Figure 2.11. The proportion of standard (non-condensing and non-combination) models and back boilers has gradually declined since 1996, with combination boilers, useful in smaller houses and flats, increasing from 14% in 1996 to 29% in 2007. Since 2005 the increase in use of combination boilers has tailed off due to the increased installation of condensing boilers, particularly combination models. A decline in non-boiler systems has also been observed, the majority of which use electricity and include one or more storage heaters.



Although double-glazing installation is seen as an expensive rather than cost effective measure for Energy Performance Certificate recommendations (for example, alongside solar water heating and solid wall insulation), there has nevertheless been a substantial increase in take up since 1996. In 1996 one third of homes had no double glazing while 26% had full double glazing, Figure 2.12. In 2007 these proportions have changed significantly, with only 11% having no double glazing and 67% fully double glazed.



In 2007 the RSL stock had the greatest proportion of whole-house double glazing with 80% of RSL homes being fully double glazed, increasing from 36% in 1996, Figure 2.13. Private rented dwellings (56%) were the least likely to be fully double glazed.



### Potential for further improvement

The previous sections have looked at the energy performance of the housing stock in 2007 and improvement measures that were carried out in the preceding eleven years. This section looks at the potential for households and landlords to carry out further heating and insulation improvements that are relatively straightforward and cost-effective, Box 2 below. These measures are included in the lower and higher cost recommendations covered by the Energy Performance Certificate (EPC) that suggest a number of practical improvements to current heating systems and insulation levels that would benefit a home in terms of improved energy performance.

#### Box 2: Potential improvement measures based on EPC recommendations

#### Low cost measures (less than £500):

- installation or upgrade of **loft insulation** which is less than or equal to 150mm to 250mm, where the dwelling is not a mid- or ground-floor flat and where the loft does not constitute a full conversion to a habitable room;
- installation of **cavity wall insulation**, where the wall is of cavity construction;
- installation or upgrade of **hot water cylinder insulation** to a level matching a 160mm jacket. Recommended where the current level is less than 25mm of spray foam or less than a 100mm jacket.

#### Higher cost measures (more than £500):

- upgrade to central heating controls, for boiler driven systems, typically to a stage where a room thermostat, a central programmer and thermostatic radiator valves (TRV's) have been installed (although the range of upgraded controls can vary depending on the heating system);
- upgrading to a **class A condensing boiler** using the same fuel (mains gas, LPG or fuel oil), where a non-communal boiler is in place (this improvement measure is most appropriate when the existing central heating boiler needs repair or replacement);
- upgrading existing storage radiators (or other electric heating) to more modern, fanassisted storage heaters;
- installation of a hot water cylinder thermostat where a storage cylinder is in use but no thermostat exists;
- replacement warm-air unit with a fan-assisted flue, where the original warm-air heating unit is pre-1998;
- installation of a manual feed biomass boiler or wood pellet stove where an independent, non-biomass solid fuel system exists. This measure was assessed to identify the number of homes that would benefit from this measure but was *not* included in the post improvement energy efficiency rating or carbon dioxide emissions (reported in section 4) due a combination of the small amount of homes that would benefit and modelling complexity.

The measures are only recommended for implementation if the improvement to the SAP rating from that measure alone will be at least 0.95 SAP points.

The suggested measures do *not* necessarily imply that current measures in place in the home are defective or that the home is 'deficient' in terms of any particular 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).

Other low or high cost measures included in the Energy Performance Certificate are not included in the section because they would only be recommended in a small number of homes or because the survey is unable to assess how effective they would be in improving the performance of individual homes. It is also important to emphasise that additional more expensive measures, including those arising from new carbon reduction technologies are not included. The focus here is on standard, practical measures that most households or landlords could readily implement. See Appendix 2.1 for a fuller list of all potential measures to improve the energy performance of housing.

Some 20.2 million homes (91% of the housing stock) would benefit from at least one of the improvement upgrades highlighted in Box 2. Around 7.1 million (46% of) homes with cavity walls and 8.9 million (45% of) homes with lofts would benefit from an upgrade to their respective insulation measures, Figure 2.14 and Table 2.6.

The improvement measure that would benefit the most number of homes is a boiler upgrade. Boilers could be upgraded to condensing units in 15.5 million (80% of) homes with a boiler driven heating system across all tenures. Upgrades to a standard package of central heating controls are recommended in two-fifths of all dwellings (7.8 million homes).

Some 2.3 million homes used storage radiators/other electric heating systems in 2007, the majority of which are already adequate, with only 16% of the 2.3 million (361,000) homes with this form of heating requiring an upgrade to more modern slim line models or from a less efficient fixed electric heating system. Similarly low percentages are seen for those benefiting from an upgrade to an existing warm air heating system, or from an existing solid fuel system to a HETAS<sup>6</sup> approved biomass boiler, with only 30,000 and 113,000 homes respectively benefiting from such an upgrade.

Of the 13.7 million homes with hot water storage cylinders, some 3.9 million (28%) would benefit from an upgrade to the cylinder insulation and 1.9 million (14%) from the fitting of a cylinder thermostat.



<sup>&</sup>lt;sup>6</sup> The official body of solid fuel domestic heating appliances, fuels and services.

| Table 2.0. Er o recommended energy emolency medadres, 2007 |                                    |                                                                         |                                       |  |  |  |  |  |  |
|------------------------------------------------------------|------------------------------------|-------------------------------------------------------------------------|---------------------------------------|--|--|--|--|--|--|
|                                                            | size of applicable<br>group (000s) | number of dwellings<br>that would benefit<br>from the measure<br>(000s) | percentage of<br>applicable group (%) |  |  |  |  |  |  |
| low cost measures (less<br>than £500)                      |                                    |                                                                         |                                       |  |  |  |  |  |  |
| loft insulation                                            | 19,908                             | 8,871                                                                   | 45                                    |  |  |  |  |  |  |
| cavity wall insulation                                     | 15,527                             | 7,088                                                                   | 46                                    |  |  |  |  |  |  |
| hot water cylinder<br>insulation                           | 13,711                             | 3,874                                                                   | 28                                    |  |  |  |  |  |  |
| higher cost measures<br>(more than £500)                   |                                    |                                                                         |                                       |  |  |  |  |  |  |
| heating controls                                           | 19,499                             | 7,784                                                                   | 40                                    |  |  |  |  |  |  |
| boiler upgrade                                             | 19,258                             | 15,455                                                                  | 80                                    |  |  |  |  |  |  |
| storage heater upgrade                                     | 2,322                              | 361                                                                     | 16                                    |  |  |  |  |  |  |
| hot water cylinder<br>thermostat                           | 13,711                             | 1,884                                                                   | 14                                    |  |  |  |  |  |  |
| replacement warm air<br>system *                           | 241                                | 30                                                                      | 12                                    |  |  |  |  |  |  |
| install biomass system +                                   | 654                                | 113                                                                     | 17                                    |  |  |  |  |  |  |

### Table 2.6: EPC recommended energy efficiency measures, 2007

**Base: all dwellings** 

\* Due to the small number of homes that this measure could benefit it has been omitted from any further (post) improvement analysis in this chapter but this measure has been included in the post-improvement Energy Efficiency Rating/carbon dioxide emissions.

+ This measure was assessed to identify the number of homes that would benefit from this measure but was *not* included in the post improvement energy efficiency rating or carbon dioxide emissions (in the following section) due a combination of the small amount of homes that would benefit and modelling complexity.

The owner occupier sector represents 70% of all homes and it is this sector that contains the most number of homes that could benefit from the improvement measures identified in Table 2.7. Some 6.8 million owner occupied homes would do so from (further) loft insulation, and 5.2 million from cavity wall insulation Figure 2.15 and Appendix 2.1, Annex Table 2A.9. Around 1.0 million homes in the social housing sector (local authority and RSL properties) would benefit having loft insulation and some 1.1 million from having cavity wall insulation.<sup>7</sup>

The greatest scope for a boiler upgrade improvement is in the private sector where 11.3 million owner occupied and 1.7 million private rented homes would benefit. Some 2.4 million social sector homes would also benefit from a boiler upgrade. Upgrades to a standard package of central heating controls are recommended in 7.8 million homes, of which some 6.1 million owner occupied homes would benefit (43% of all those with boiler driven heating systems in the sector) and around 0.9 million homes in the social sector.

<sup>&</sup>lt;sup>7</sup> The 1.1 million homes in the social sector that would benefit from cavity wall insulation do not take into account those that may be difficult to treat in this respect. The 2006 EHCS Annual Report's analysis of the 'treatability' of homes (p 251) suggested that around 150,000 social sector homes may have unfillable cavity walls with a greater number posing some technical difficulties.



The owner occupied sector has the highest number of dwellings that would benefit from improvement but the privately rented homes are those most likely to have upgrade potential, having the greatest proportion (of each applicable group) in five out of the seven improvement measures in Figure 2.16, loft insulation (49%), cavity wall insulation (56%), boiler upgrade (83%), storage heater upgrade (17%) and hot water cylinder insulation (36%). RSL homes are the least likely to have upgrade potential.



The greatest number of homes that require cavity wall insulation is in housing built between 1965 and 1980, where some 2.5 million dwellings would benefit, compared with 0.75 million in the 1980's stock, due to a higher proportion of dwellings with insulation originally installed in newer homes and 0.6 million in pre-1919 stock, due to the predominance of solid-walled homes in the oldest category of stock, which would require more expensive wall insulation solutions for improvement, Figure 2.17. The largest potential for loft insulation upgrades is also in the 1965-1980 group, but the 0.7 million (32%) of post-1990 dwellings that would benefit is considerable considering the changes to building regulations throughout that period.

Examining heating systems, there is a similar requirement across the pre-1980 construction date categories with around three million dwellings in each band benefiting from an upgrade to a condensing boiler. The highest number of dwellings benefiting from an upgrade to modern storage heaters is in the 1965-1980 category.

The highest number of dwellings benefiting from upgrade to heating control, hot water cylinder insulation and hot water cylinder thermostat occurs in the 1965-80 age category followed by the 1945-64 age category.



Solid walled housing is found predominantly in pre-1919 stock but of the cavity walls that do exist in this age category, 80% could be filled with insulation compared with just over 40% of housing built with cavity walls in the 1980's, Figure 2.18. It is assumed that all post 1990 stock have cavity wall insulation, in line with changes to building regulations.

However, proportionally, the oldest dwellings are slightly less likely to need a boiler or central heating controls upgrade, since they will often have had a system fitted recently to replace a less efficient, original system, whilst other dwelling age bands may still be using their original, non-condensing boiler/heating controls. Also, only 37% of pre-1919 homes could benefit from a loft insulation top up, compared to 59% in the 1981-90 age category.

A similar pattern exists between the age categories with the potential for better hot water cylinder insulation and the installation of a cylinder thermostat. The potential for these two improvement measures increases from pre-1919 homes to 1965-1980 homes and then the potential reduces for 1981-90 homes and reduces further still for post 1990 homes.

Post 1990 homes are the least likely to have overall upgrade potential, having the lowest proportion (of each applicable group) in six out of the seven improvement measures in Figure 2.18 (all improvement measures with the exception of boiler upgrade). This is due to new homes being constructed under tighter Building Regulations requirements for energy efficiency.



Across the English stock, semi-detached dwellings predominate and this is reflected in the number of homes that would benefit from almost all energy efficiency upgrades being considered, Figure 2.19. This includes 2.6 million requiring more loft insulation and 2.3 million without cavity wall insulation. Some 4.6 million semi-detached homes require a boiler upgrade, similar to the total number of terraced homes that would benefit.

The category with the greatest number of homes that would benefit from upgrades to modern storage radiators is low-rise purpose built flats, due to the more common use of electrical heating in this dwelling type.



Proportionally, the date of construction is reflected in the types of dwelling that are more likely to require cavity wall insulation to be installed with over 80% of the older converted flats recommended for installation along with 54% of mid-terraces, typically the oldest of the house types, Figure 2.20. We also find that 47% of low-rise and 74% of high-rise flats would benefit from cavity wall insulation to be installed.

Proportionally, the need to upgrade to condensing boilers is reasonably constant across the dwelling types. The oldest electrical heating systems are typically found in bungalows and detached houses with 25% and 23% respectively requiring upgrades to modern storage radiators. In terms of central heating controls, houses have a greater proportional potential than flats, which are typically more modern and more likely to have an adequate selection of controls.



The greatest scope for cavity wall insulation retro-fitting is in the South East with 53% of cavity walled homes still to be filled. This region also has the highest need for condensing boiler upgrades at 82%, but the lowest proportion requiring further central heating controls, Appendix 2.1, Annex Table 2A.12.

Rural locations do not have as great a scope as other areas for cavity wall insulation and condensing boiler installations, but it needs to be remembered that dwellings here are far more likely to involve complications such as solid walls and the lack of mains gas. Indeed, where electricity is used for space heating, 26% of rural homes require an upgrade to better storage heaters compared with 13% in suburban areas and 12% in cities and other urban sites, Appendix 2.1, Annex Table 2A.13.

### Post-improvement performance

This final section looks at the potential performance of the housing stock if the cost effective measures detailed in the preceding section were fully implemented<sup>8</sup>. On this basis the CO<sub>2</sub> emissions for would fall on average by 1.5 tonnes/year for every home in the housing stock (from 6.6 to 5.1 tonnes/year), Table 2.7. This would result in a total saving across the stock of 33 million tonnes of CO<sub>2</sub> (or 22% of total emissions accounted for by the housing stock under the standard occupancy and heating patterns used to assess stock performance).<sup>9</sup> Post-improvement, the average SAP rating for the stock would rise by exactly 10 points to 60 which would be a change similar to that seen between the early 1990's and 2007.<sup>10</sup> On the basis of 2005 energy prices, this would result in a potential 20% reduction in the heating, lighting and ventilation costs of average fuel bills for all households (from £634 to £507 at 2005 prices)<sup>11</sup>.

### Table 2.7: Potential improvements in energy efficiency (SAP) ratings, $CO_2$ emissions and fuel costs by tenure, 2007

|                   | current<br>perfomance |                                     |                      | improved performance |                                     |                      | difference                  |                                               |                                |
|-------------------|-----------------------|-------------------------------------|----------------------|----------------------|-------------------------------------|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|
|                   | SAP<br>(rating)       | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>(rating)      | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>increase<br>(rating) | CO <sub>2</sub><br>saving<br>(tones/<br>year) | cost<br>saving<br>(£/<br>year) |
| owner             | 48.1                  | 7.3                                 | 693                  | 58.7                 | 5.6                                 | 551                  | 10.6                        | 1.7                                           | 143                            |
| occupied          |                       |                                     |                      |                      |                                     |                      |                             |                                               |                                |
| private<br>rented | 48.1                  | 6.1                                 | 599                  | 57.7                 | 4.8                                 | 484                  | 9.5                         | 1.3                                           | 116                            |
| local             | 56.2                  | 4.4                                 | 438                  | 64.8                 | 3.4                                 | 354                  | 8.7                         | 1.0                                           | 84                             |
| authority         |                       |                                     |                      |                      |                                     |                      |                             |                                               |                                |
| RSL               | 59.5                  | 4.0                                 | 407                  | 66.7                 | 3.2                                 | 337                  | 7.3                         | .8                                            | 70                             |
| all<br>tenures    | 49.8                  | 6.6                                 | 634                  | 59.8                 | 5.1                                 | 507                  | 10.0                        | 1.5                                           | 128                            |
| Base: all dw      | vellings              |                                     |                      |                      |                                     |                      |                             |                                               |                                |

As an approximation, the total cost of carrying out these improvements on the 20.2 million homes is around £30 billion. This equates to an average expenditure of £1,500 for each of the 20.2 million homes that would benefit.

- <sup>8</sup> Excluding the installation of a manual feed biomass boiler or wood pellet stove where an independent, nonbiomass solid fuel system exists. This measure was *not* included in the post improvement energy efficiency rating or carbon dioxide emissions due to a combination of the small amount of homes that would benefit and modelling complexity.
- <sup>9</sup> It is important to emphasise that actual emissions would not necessarily reduce by this amount, as the actual occupancy and consumption behaviours of households mediate between the potential performance of the housing stock and their emissions and costs.
- <sup>10</sup> However, the 10 point improvement would be a more significant gain than that achieved in the preceding 16 years because it is more difficult to improve the SAP rating at the higher end of its scale.
- <sup>11</sup> Again, it is important to emphasise that such savings are dependent on actual occupancy and consumption behaviours.

While proportionately the reduction in  $CO_2$  emissions are comparable across all housing sectors (from 23% in owner occupied to 20% in RSL housing), in absolute terms, the potential gain from the owner occupied sectors is more pronounced (1.7 tonnes/year/ dwelling, more than twice the 0.8 tonnes/year/dwelling in the RSL sector), Figure 2.21 and Table 2.7.



The extent of change is more visible in the distribution of  $CO_2$  emissions within each sector, Figure 2.22. Across the stock as whole the proportion of homes notionally emitting less than three tonnes/year of  $CO_2$  would more than double (from 9% to 21% of the housing stock) while those emitting seven or more tonnes/year would almost halve (from 31% to 16%). Within the RSL stock, the tenure with lowest average emissions, the majority of its homes would emit less than five tonnes/year (improving from 78% to 91% of its stock). Among the owner occupied stock the number of homes emitting less than five tonnes/year would double (from 29% to 58% of the sector).



With regard to energy efficiency, the owner occupied sector would improve its average SAP rating by eleven SAP points, in comparison to seven SAP points in (the already more efficient) RSL housing stock, Figure 2.23.



The extent of improvement is more visible through the Energy Efficiency Rating (EER) Bands, Figure 2.24. Over the housing stock as a whole, the number of homes in the more efficient Bands A to C would more than double and the number in the least efficient Bands E to F would more than half. The majority of RSL homes would fall into Bands A to C and the proportion of owner occupied homes in the most inefficient Bands E to F would fall from 65% to just 28% of the sector.



With regard to the age of homes the greatest scope for improvement is in the central mass of the housing stock built between 1919 and 1980, Table 2.8. This is the stock with the highest numbers of unfilled cavity walls and in which loft insulation top-ups and heating control upgrades still have a high potential. Carrying out the cost effective upgrades identified in the previous section could on average reduce  $CO_2$  emissions in this stock by around 25-27% (from 1.5 to 1.8 tonnes/year) and improve its energy efficiency by around 11 to 12 SAP points.

Unsurprisingly the least scope for improvement is in the most recently built homes which include more efficient measures in their design and construction and already operate at a higher level of performance.

Pre-1919 homes also show relatively modest improvement potential due to the difficulty in applying straightforward cost effective measures to these dwellings. A much higher than average proportion of this stock has solid walls or is without access to mains gas, so more costly measures would be needed to improve it by as much as, say, inter-war housing stock. Nevertheless, the very high  $CO_2$  emissions in these homes still allow for substantial reductions in an absolute sense (from an average of 9.0 to 7.4 tonnes/year).

| emission            | nissions and fuel costs by dwelling age, 2007 |                                     |                      |                 |                                     |                      |                             |                                               |                                |  |
|---------------------|-----------------------------------------------|-------------------------------------|----------------------|-----------------|-------------------------------------|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|--|
|                     | current<br>perfomance                         |                                     |                      | pos             | post-performance                    |                      |                             | difference                                    |                                |  |
|                     | SAP<br>(rating)                               | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>(rating) | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>increase<br>(rating) | CO <sub>2</sub><br>saving<br>(tones/<br>year) | cost<br>saving<br>(£/<br>year) |  |
| pre-1919            | 40.4                                          | 9.0                                 | 853                  | 49.4            | 7.4                                 | 713                  | 8.9                         | 1.6                                           | 139                            |  |
| 1919-44             | 45.5                                          | 7.2                                 | 678                  | 57.3            | 5.4                                 | 527                  | 11.7                        | 1.8                                           | 152                            |  |
| 1945-64             | 49.5                                          | 6.2                                 | 598                  | 61.6            | 4.5                                 | 453                  | 12.1                        | 1.7                                           | 144                            |  |
| 1965-80             | 52.4                                          | 5.7                                 | 558                  | 63.7            | 4.2                                 | 425                  | 11.3                        | 1.5                                           | 133                            |  |
| 1981-90             | 56.6                                          | 5.1                                 | 508                  | 64.3            | 4.1                                 | 420                  | 7.7                         | 1.0                                           | 89                             |  |
| post 1990           | 64.7                                          | 4.5                                 | 457                  | 69.7            | 3.8                                 | 397                  | 5.0                         | 0.7                                           | 60                             |  |
| all ages            | 49.8                                          | 6.6                                 | 634                  | 59.8            | 5.1                                 | 507                  | 10.0                        | 1.5                                           | 128                            |  |
| Base: all dwellings |                                               |                                     |                      |                 |                                     |                      |                             |                                               |                                |  |

Table 2.8: Potential improvements in energy efficiency (SAP) ratings, CO.

Houses of all types show a greater potential improvement than flats, reflecting their lower starting point, Table 2.9. High-rise flats have the smallest potential improvement of six SAP points and 0.6 tonnes of CO<sub>2</sub>, which is related to the difficulty in applying measures due to the location and situation of these flats. It is semi-detached homes that have the greatest improvement potential through standard cost effective measures, with a 25% reduction in CO<sub>2</sub> emissions (from 6.9 to 5.2 tonnes/year) and an increase of 12 SAP points in average energy efficiency rating.

### Table 2.9: Potential improvements in energy efficiency (SAP) ratings, CO<sub>2</sub> emissions and fuel costs by dwelling type, 2007

|                             | p               | current<br>perfomance               |                      | post-<br>performance |                                     |                      | difference                  |                                               |                                |  |
|-----------------------------|-----------------|-------------------------------------|----------------------|----------------------|-------------------------------------|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|--|
|                             | SAP<br>(rating) | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>(rating)      | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>increase<br>(rating) | CO <sub>2</sub><br>saving<br>(tones/<br>year) | cost<br>saving<br>(£/<br>year) |  |
| end terrace                 | 47.2            | 6.6                                 | 636                  | 57.6                 | 5.1                                 | 509                  | 10.4                        | 1.5                                           | 127                            |  |
| mid terrace                 | 53.4            | 5.4                                 | 532                  | 62.6                 | 4.2                                 | 430                  | 9.2                         | 1.2                                           | 101                            |  |
| semi                        | 47.3            | 6.9                                 | 659                  | 58.9                 | 5.2                                 | 513                  | 11.6                        | 1.7                                           | 146                            |  |
| detached                    |                 |                                     |                      |                      |                                     |                      |                             |                                               |                                |  |
| detached                    | 46.9            | 9.9                                 | 925                  | 57.1                 | 7.7                                 | 742                  | 10.2                        | 2.2                                           | 183                            |  |
| bungalow                    | 46.0            | 6.2                                 | 599                  | 56.9                 | 4.7                                 | 472                  | 10.9                        | 1.5                                           | 127                            |  |
| converted                   | 44.3            | 5.8                                 | 584                  | 52.6                 | 4.9                                 | 494                  | 8.3                         | 1.0                                           | 90                             |  |
| nat<br>pb flat, low<br>rise | 59.9            | 3.5                                 | 372                  | 67.3                 | 2.8                                 | 306                  | 7.4                         | 0.7                                           | 66                             |  |
| pb flat,<br>high rise       | 57.4            | 4.0                                 | 428                  | 63.2                 | 3.4                                 | 372                  | 5.7                         | 0.6                                           | 56                             |  |
| all types                   | 49.8            | 6.6                                 | 634                  | 59.8                 | 5.1                                 | 507                  | 10.0                        | 1.5                                           | 128                            |  |
| Base: all dwe               | llings          |                                     |                      |                      |                                     |                      |                             |                                               |                                |  |

Although the improvement potential between broad regional groups are fairly similar, south east regions are checked somewhat by the larger proportion of flats there and the concentration of older, solid walled stock found particularly in London, Table 2.10.

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| emissions and fuel costs by regional area, 2007 |                     |                                     |                      |                 |                                     |                      |                             |                                               |                                |  |
|-------------------------------------------------|---------------------|-------------------------------------|----------------------|-----------------|-------------------------------------|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|--|
|                                                 | curre               | nt perfoma                          | nce                  | improv          | ved perform                         | nance                |                             | difference                                    |                                |  |
|                                                 | SAP<br>(rating)     | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>(rating) | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>increase<br>(rating) | CO <sub>2</sub><br>saving<br>(tones/<br>year) | cost<br>saving<br>(£/<br>year) |  |
| northern                                        | 50.7                | 6.3                                 | 611                  | 61.0            | 4.8                                 | 481                  | 10.3                        | 1.5                                           | 130                            |  |
| regions<br>south east<br>regions                | 50.7                | 6.4                                 | 620                  | 60.5            | 4.9                                 | 496                  | 9.8                         | 1.4                                           | 124                            |  |
| rest of<br>England                              | 48.5                | 6.9                                 | 662                  | 58.5            | 5.4                                 | 533                  | 9.9                         | 1.5                                           | 129                            |  |
| all regions                                     | 49.8                | 6.6                                 | 634                  | 59.8            | 5.1                                 | 507                  | 10.0                        | 1.5                                           | 128                            |  |
| Base: all dwe                                   | Base: all dwellings |                                     |                      |                 |                                     |                      |                             |                                               |                                |  |

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Similarly, rural areas, despite starting from a poor energy efficiency position, do not demonstrate a greatly improved potential performance in SAP ratings, although the large size of many rural homes means that the more limited cost effective upgrades that can be carried out will lead to a substantial average reduction in  $CO_2$  emissions in these areas (between 1.7 and 2.3 tonnes/year), Table 2.11.

| Table 2.11: Potential improvements in energy efficiency (SAP) ratings, CO <sub>2</sub> emissions and fuel costs by area type, 2007 |                 |                                     |                      |                 |                                     |                      |                             |                                               |                                |
|------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------------------|----------------------|-----------------|-------------------------------------|----------------------|-----------------------------|-----------------------------------------------|--------------------------------|
|                                                                                                                                    | curre           | nt perfoma                          | ince                 | pos             | t-performai                         | nce                  |                             | difference                                    |                                |
|                                                                                                                                    | SAP<br>(rating) | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>(rating) | CO <sub>2</sub><br>(tones/<br>year) | cost<br>(£/<br>year) | SAP<br>increase<br>(rating) | CO <sub>2</sub><br>saving<br>(tones/<br>year) | cost<br>saving<br>(£/<br>year) |
| city centre                                                                                                                        | 51.3            | 5.6                                 | 562                  | 59.6            | 4.4                                 | 462                  | 8.3                         | 1.1                                           | 100                            |
| other urban<br>centre                                                                                                              | 51.3            | 5.7                                 | 564                  | 60.4            | 4.5                                 | 458                  | 9.1                         | 1.2                                           | 105                            |
| suburban<br>residential                                                                                                            | 51.5            | 6.0                                 | 588                  | 61.9            | 4.6                                 | 460                  | 10.5                        | 1.5                                           | 128                            |
| rural<br>residential                                                                                                               | 46.9            | 7.8                                 | 736                  | 56.9            | 6.1                                 | 594                  | 9.9                         | 1.7                                           | 142                            |
| village<br>centre                                                                                                                  | 41.6            | 9.1                                 | 844                  | 51.4            | 7.4                                 | 691                  | 9.8                         | 1.8                                           | 154                            |
| rural                                                                                                                              | 31.5            | 14.4                                | 1318                 | 40.1            | 12.0                                | 1117                 | 8.6                         | 2.3                                           | 201                            |
| all areas                                                                                                                          | 49.8            | 6.6                                 | 634                  | 59.8            | 5.1                                 | 507                  | 10.0                        | 1.5                                           | 128                            |
| Base: all dwellings                                                                                                                |                 |                                     |                      |                 |                                     |                      |                             |                                               |                                |

It is homes in suburban residential areas which have on average the greatest potential for improvement through these cost effective measures, with a 24% reduction in  $CO_2$  emissions (from 6.0 to 4.6 tonnes/year) and a 10 point increase in the average SAP rating (from 52 to 62).

### Appendix 2.1

### **Energy performance improvement measures**

### A) Included in assessment of improvement potential and post-improvement performance

EPC Low cost measures (less than £500):

- installation of cavity wall insulation, where the wall is of cavity construction;
- installation or upgrade of **loft insulation** which is less than or equal to 150mm to 250mm, where the dwelling is not a mid- or ground-floor flat and where the loft does not constitute a full conversion to a habitable room;
- installation or upgrade of **hot water cylinder insulation** to a level matching a 160mm jacket. Recommended where the current level is less than 25mm of spray foam or less than a 100mm jacket.

EPC Higher cost measures (more than £500):

- upgrade to central heating controls, for boiler driven systems, typically to a stage where a room thermostat, a central programmer and thermostatic radiator valves (TRV's) have been installed (although the range of upgraded controls can vary depending on the heating system);
- upgrading to a **class A condensing boiler** using the same fuel (mains gas, LPG or fuel oil), where a non-communal boiler is in place;
- upgrading existing storage radiators (or other electric heating) to more **modern, fan**assisted storage heaters;
- installation of a **hot water cylinder thermostat** where a storage cylinder is in use but no thermostat exists;
- replacement warm-air unit with a fan-assisted flue, where the original warm-air heating unit is pre-1998;

#### B) Not included

EPC Low cost measures:

- Draught proofing single glazed windows;
- Low energy lights.

EPC Higher cost measures:

 Installation of a manual feed biomass boiler or wood pellet stove where an independent, non-biomass solid fuel system exists. This measure was assessed to identify the number of homes that would benefit from this measure but was *not* included in the post improvement energy efficiency rating or carbon dioxide emissions (reported in section 4) due to modelling complexity.

Other more expensive measures:

- Solar water heating;
- Double or secondary glazing;
- Solid wall insulation;
- Complete change of heating system to class A condensing boiler (including fuel switching);
- Solar photovoltaics (PV) panels.

### **Annex Tables to Chapter 2**

Annex Table 2A.1: Average energy efficiency (SAP) and carbon dioxide  $(CO_2)$  emissions by dwelling type and tenure, 2007

|                               | average      | average CO <sub>2</sub> per | total CO <sub>2</sub> emissions for the<br>whole tenure |
|-------------------------------|--------------|-----------------------------|---------------------------------------------------------|
| ownor occupied:               | 5AF<br>19.1  |                             | (minion tonnes/ yr)                                     |
| owner occupied.               | 40.1         | 7.5                         | 112.5                                                   |
| end terrace                   | 45.8<br>52 1 | 7.0                         | 9.5                                                     |
| semi detached                 | 46.9         | 7.1                         | 34.6                                                    |
| detached                      | 47.3         | 9.8                         | 36.6                                                    |
| bungalow                      | 44.4         | 6.8                         | 10.6                                                    |
| converted flat                | 43.2         | 6.7                         | 1.9                                                     |
| purpose built flat, low rise  | 56.0<br>56.1 | 3.9                         | 5.5<br>0.4                                              |
|                               | 40.1         | 6.1                         | 16.6                                                    |
| end terrace                   | 43.9         | 7.1                         | 2.0                                                     |
| mid terrace                   | 52.1         | 5.2                         | 3.4                                                     |
| semi detached                 | 43.3         | 7.6                         | 3.7                                                     |
| detached                      | 40.4         | 11.3                        | 2.5                                                     |
| bungalow                      | 40.0         | 6.6                         | 0.7                                                     |
| converted flat                | 43.Z<br>56.7 | 5.5<br>3.7                  | 2.0                                                     |
| purpose built flat, high rise | 57.3         | 3.8                         | 0.2                                                     |
| local authority:              | 56.2         | 4.4                         | 8.7                                                     |
| end terrace                   | 52.0         | 5.4                         | 1.2                                                     |
| mid terrace                   | 58.2         | 4.5                         | 1.6                                                     |
| semi detached                 | 50.2         | 5.7                         | 2.2                                                     |
| detached                      | 38.9         | 11.6<br>// 1                | 0.0                                                     |
| converted flat                | 52.2         | 4.4                         | 0.1                                                     |
| purpose built flat, low rise  | 61.5         | 3.3                         | 2.2                                                     |
| purpose built flat, high rise | 56.7         | 4.0                         | 0.5                                                     |
| RSL:                          | 59.5         | 4.0                         | 7.7                                                     |
| end terrace                   | 56.0         | 5.0                         | 1.0                                                     |
| mid terrace                   | 60.5<br>55.2 | 4.Z<br>5.1                  | l.5<br>18                                               |
| detached                      | 46.5         | 9.7                         | 0.1                                                     |
| bungalow                      | 55.1         | 4.0                         | 0.9                                                     |
| converted flat                | 49.4         | 4.9                         | 0.4                                                     |
| purpose built flat, low rise  | 65.7         | 2.8                         | 1.7                                                     |
| purpose built flat, high rise | 61.5         | 3.2                         | 0.2                                                     |
| Base: all dwellings           |              |                             |                                                         |

# AnnexTable 2A.2: Average energy efficiency rating (SAP) and carbon dioxide $(CO_2)$ by dwelling age/tenure, 2007

|                     |         |                             | total CO <sub>2</sub> emissions for the |
|---------------------|---------|-----------------------------|-----------------------------------------|
|                     | average | average CO <sub>2</sub> per | whole tenure                            |
|                     | SAP     | dwelling (tonnes/yr)        | (million tonnes/yr)                     |
| owner occupied:     | 48.1    | 7.3                         | 112.9                                   |
| pre-1919            | 39.8    | 9.8                         | 33.1                                    |
| 1919-44             | 44.2    | 7.7                         | 22.5                                    |
| 1945-64             | 47.3    | 6.9                         | 19.2                                    |
| 1965-80             | 50.2    | 6.4                         | 21.0                                    |
| 1981-90             | 54.1    | 5.7                         | 7.8                                     |
| post 1990           | 63.0    | 5.0                         | 9.2                                     |
| private rented:     | 48.1    | 6.1                         | 16.6                                    |
| pre-1919            | 40.7    | 7.4                         | 8.3                                     |
| 1919-44             | 45.7    | 6.7                         | 2.6                                     |
| 1945-64             | 48.4    | 6.1                         | 1.9                                     |
| 1965-80             | 50.9    | 5.1                         | 2.2                                     |
| 1981-90             | 60.4    | 3.7                         | 0.7                                     |
| post 1990           | 67.8    | 3.2                         | 0.9                                     |
| local authority:    | 56.2    | 4.4                         | 8.7                                     |
| pre-1919            | 45.8    | 6.0                         | 0.5                                     |
| 1919-44             | 52.6    | 4.9                         | 1.7                                     |
| 1945-64             | 54.3    | 4.7                         | 3.7                                     |
| 1965-80             | 59.8    | 3.8                         | 2.4                                     |
| 1981-90             | 65.1    | 3.2                         | 0.3                                     |
| post 1990           | 70.7    | 2.7                         | 0.1                                     |
| RSL:                | 59.5    | 4.0                         | 7.7                                     |
| pre-1919            | 47.8    | 5.7                         | 1.1                                     |
| 1919-44             | 51.9    | 5.2                         | 1.0                                     |
| 1945-64             | 55.3    | 4.6                         | 2.1                                     |
| 1965-80             | 60.3    | 3.7                         | 1.6                                     |
| 1981-90             | 65.3    | 3.1                         | 0.7                                     |
| post 1990           | 69.6    | 2.9                         | 1.2                                     |
| Base: all dwellings |         |                             |                                         |

## Annex Table 2A.3: Average energy efficiency rating (SAP) and carbon dioxide $(CO_2)$ by regional grouping/tenure, 2007

|                         | average<br>SAP | average CO <sub>2</sub> per<br>dwelling (tonnes/yr) | total CO <sub>2</sub> emissions for the<br>whole tenure<br>(million tonnes/yr) |
|-------------------------|----------------|-----------------------------------------------------|--------------------------------------------------------------------------------|
| owner occupied:         | <b>48.1</b>    | <b>7.3</b>                                          | <b>112.9</b>                                                                   |
| northern regions        | 48.3           | 6.9                                                 | 31.2                                                                           |
| south east regions      | 41.3           | 9.6                                                 | 32.4                                                                           |
| rest of England         | 32.8           | 14.9                                                | 49.3                                                                           |
| <b>private rented:</b>  | <b>48.1</b>    | <b>6.1</b>                                          | <b>16.6</b>                                                                    |
| northern regions        | 48.6           | 5.4                                                 | 4.1                                                                            |
| south east regions      | 36.7           | 8.2                                                 | 6.0                                                                            |
| rest of England         | 25.0           | 13.0                                                | 6.5                                                                            |
| <b>local authority:</b> | <b>56.2</b>    | <b>4.4</b>                                          | <b>8.7</b>                                                                     |
| northern regions        | 58.2           | 3.9                                                 | 2.7                                                                            |
| south east regions      | 53.0           | 5.0                                                 | 2.7                                                                            |
| rest of England         | 42.2           | 6.7                                                 | 3.3                                                                            |
| <b>RSL:</b>             | <b>59.5</b>    | <b>4.0</b>                                          | <b>7.7</b>                                                                     |
| northern regions        | 59.8           | 3.6                                                 | 2.5                                                                            |
| south east regions      | 48.1           | 6.1                                                 | 2.3                                                                            |
| rest of England         | 46.1           | 8.0                                                 | 2.9                                                                            |
| <b>all dwellings</b>    | <b>49.8</b>    | <b>6.6</b>                                          | <b>145.8</b>                                                                   |
| northern regions        | 50.7           | 6.3                                                 | 40.5                                                                           |
| south east regions      | 50.7           | 6.4                                                 | 43.3                                                                           |
| rest of England         | 48.5           | 6.9                                                 | 62.1                                                                           |
| Base: all dwellings     |                |                                                     |                                                                                |

## AnnexTable 2A.4: Average energy efficiency rating (SAP) and carbon dioxide $(CO_2)$ by nature of area/tenure, 2007

|                       | average<br>SAP | average CO <sub>2</sub> per<br>dwelling (tonnes/yr) | total CO <sub>2</sub> emissions for the<br>whole tenure<br>(million tonnes/yr) |
|-----------------------|----------------|-----------------------------------------------------|--------------------------------------------------------------------------------|
| owner occupied:       | 48.1           | 7.3                                                 | 112.9                                                                          |
| city centre           | 48.3           | 6.9                                                 | 1.9                                                                            |
| other urban centre    | 48.6           | 6.5                                                 | 15.2                                                                           |
| suburban residential  | 49.8           | 6.6                                                 | 62.9                                                                           |
| rural residential     | 46.3           | 8.2                                                 | 17.6                                                                           |
| Village centre        | 41.3           | 9.6                                                 | 0.8                                                                            |
| IUIdi                 | 32.0           | 14.9                                                | 0.4                                                                            |
| private rented:       | 48.1           | 6.1                                                 | 16.6                                                                           |
| city centre           | 48.6           | 5.4                                                 | 1.1                                                                            |
| other urban centre    | 49.5           | 5.4<br>E.4                                          | 4.0                                                                            |
| supurpari residential | 01.3<br>45.2   | 0.4<br>72                                           | 0.7                                                                            |
| village centre        | 40.0<br>26.7   | 8.2                                                 | 0.7                                                                            |
| rural                 | 25.0           | 13.0                                                | 1.9                                                                            |
| local authority:      | 56.2           | 4.4                                                 | 8.7                                                                            |
| city centre           | 58.2           | 3.9                                                 | 0.3                                                                            |
| other urban centre    | 57.5           | 4.2                                                 | 2.1                                                                            |
| suburban residential  | 56.1           | 4.4                                                 | 5.4                                                                            |
| rural residential     | 51.2           | 5.2                                                 | 0.6                                                                            |
| village centre        | 53.0           | 5.0                                                 | 0.2                                                                            |
| rural                 | 42.2           | 6.7                                                 | 0.0                                                                            |
| RSL:                  | 59.5           | 4.0                                                 | 7.7                                                                            |
| city centre           | 59.8           | 3.6                                                 | 0.3                                                                            |
| other urban centre    | 60.7           | 3.7                                                 | 1.8                                                                            |
| suburban residential  | 60.5           | 3.9                                                 | 4.4                                                                            |
| rurai residentiai     | 53.6           | 4.9                                                 | 0.8                                                                            |
| rural                 | 46.1<br>46.1   | 0.1                                                 | 0.3                                                                            |
|                       |                | 0.0                                                 | 0.1                                                                            |
| Dase: all aweilings   |                |                                                     |                                                                                |

| Annex Table 2A.5: Dwellings with cavity walls, 1996-2007                                                  |                                                |                                                      |                                                      |                                                      |                                                      |                                                      |                                                      |  |  |  |
|-----------------------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|------------------------------------------------------|--|--|--|
|                                                                                                           | 1996 2001 2003 2004 2005 2006 2006             |                                                      |                                                      |                                                      |                                                      |                                                      |                                                      |  |  |  |
| numbers (000s)<br>owner occupied<br>private rented<br>local authority<br>RSL<br>all private<br>all social | 9,165<br>810<br>2,549<br>696<br>9,976<br>3,244 | 10,381<br>1,046<br>2,155<br>1,162<br>11,427<br>3,317 | 10,571<br>1,055<br>1,790<br>1,275<br>11,626<br>3,065 | 10,821<br>1,170<br>1,746<br>1,306<br>11,990<br>3,052 | 10,742<br>1,243<br>1,612<br>1,470<br>11,985<br>3,082 | 10,769<br>1,317<br>1,537<br>1,518<br>12,086<br>3,055 | 11,046<br>1,451<br>1,489<br>1,541<br>12,496<br>3,031 |  |  |  |
| all tenures                                                                                               | 13,220                                         | 14,744                                               | 14,691                                               | 15,042                                               | 15,067                                               | 15,141                                               | 15,527                                               |  |  |  |
| <b>percentage (%)</b><br>owner occupied<br>private rented<br>local authority<br>RSL                       | 65.8<br>40.5<br>73.5<br>73.9                   | 70.1<br>48.2<br>76.6<br>81.6                         | 69.5<br>47.9<br>72.9<br>78.6                         | 70.8<br>50.1<br>74.8<br>78.4                         | 70.1<br>50.4<br>74.4<br>80.9                         | 69.7<br>50.5<br>73.7<br>82.1                         | 71.0<br>53.0<br>75.0<br>81.0                         |  |  |  |
| all private<br>all social                                                                                 | 62.6<br>73.6                                   | 67.3<br>78.3                                         | 66.8<br>75.2                                         | 68.1<br>76.3                                         | 67.3<br>77.4                                         | 66.9<br>77.6                                         | 68.3<br>77.9                                         |  |  |  |
| all tenures<br>Base: all dwellings                                                                        | 65.0                                           | 69.5                                                 | 68.4                                                 | 69.6                                                 | 69.2                                                 | 68.9                                                 | /0.0                                                 |  |  |  |

| Annex Table 2A.6: Dwellings with cavity wall insulation, 1996-2007                          |                                     |                                     |                                     |                                     |                                     |                                     |                                     |  |
|---------------------------------------------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--|
|                                                                                             | 1996                                | 2001                                | 2003                                | 2004                                | 2005                                | 2006                                | 2007                                |  |
| numbers (000s)<br>owner occupied<br>private rented<br>local authority<br>RSL<br>all private | 2,038<br>101<br>551<br>164<br>2,139 | 3,663<br>297<br>751<br>514<br>3,960 | 3,736<br>288<br>760<br>550<br>4,024 | 4,029<br>355<br>835<br>606<br>4,384 | 4,121<br>365<br>797<br>690<br>4,487 | 4,650<br>381<br>834<br>779<br>5,031 | 5,152<br>460<br>830<br>825<br>5,612 |  |
| all social                                                                                  | 715<br><b>2.853</b>                 | 1,266<br><b>5,226</b>               | 1,310<br><b>5.334</b>               | 1,441<br><b>5.825</b>               | 1,488<br><b>5.974</b>               | 1,613<br><b>6.644</b>               | 1,655<br><b>7,267</b>               |  |
| percentage expressed as a<br>proportion of dwellings with cavity<br>walls (%)               | _,                                  | -,                                  | -,                                  | -,                                  | -,                                  | -,                                  | -,                                  |  |
| owner occupied<br>private rented<br>local authority<br>RSL                                  | 22.2<br>12.4<br>21.6<br>23.6        | 35.3<br>28.4<br>34.9<br>44.3        | 35.3<br>27.3<br>42.4<br>43.2        | 37.2<br>30.4<br>47.8<br>46.4        | 38.4<br>29.4<br>49.5<br>47.0        | 43.2<br>28.9<br>54.2<br>51.3        | 46.6<br>31.7<br>55.7<br>53.5        |  |
| all private<br>all social                                                                   | 21.4<br>22.0                        | 34.7<br>38.2                        | 34.6<br>42.7                        | 36.6<br>47.2                        | 37.4<br>48.3                        | 41.6<br>52.8                        | 44.9<br>54.6                        |  |
| all tenures<br>Base: dwellings with cavity walls                                            | 21.6                                | 35.4                                | 36.3                                | 38.7                                | 39.7                                | 43.9                                | 46.8                                |  |

| Annex Table 2A.7: Loft insulation thickness by tenure, 2003-2007 |                 |               |               |               |               |               |  |
|------------------------------------------------------------------|-----------------|---------------|---------------|---------------|---------------|---------------|--|
|                                                                  |                 | 2003          | 2004          | 2005          | 2006          | 2007          |  |
| owner occupied                                                   | none            | 561           | 613           | 646           | 594           | 502           |  |
|                                                                  | less than 100mm | 4,620         | 4,480         | 4,292         | 3,865         | 3,681         |  |
|                                                                  | 100 up to 150mm | 5,835         | 5,720         | 5,542         | 5,609         | 5,515         |  |
|                                                                  | 150mm or more   | 3,482         | 3,785         | 4,110         | 4,639         | 5,134         |  |
|                                                                  | no loft         | 703           | 681           | 742           | 735           | 727           |  |
|                                                                  | <b>total</b>    | <b>15,201</b> | <b>15,279</b> | <b>15,331</b> | <b>15,442</b> | <b>15,560</b> |  |
| private rented                                                   | none            | 155           | 162           | 161           | 161           | 169           |  |
|                                                                  | less than 100mm | 707           | 707           | 735           | 769           | 771           |  |
|                                                                  | 100 up to 150mm | 618           | 656           | 643           | 667           | 679           |  |
|                                                                  | 150mm or more   | 236           | 330           | 387           | 432           | 549           |  |
|                                                                  | no loft         | 489           | 479           | 540           | 582           | 571           |  |
|                                                                  | <b>total</b>    | <b>2,205</b>  | <b>2,334</b>  | <b>2,467</b>  | <b>2,611</b>  | <b>2,738</b>  |  |
| local authority                                                  | none            | 31            | 28            | 28            | 41            | 38            |  |
|                                                                  | less than 100mm | 336           | 298           | 252           | 226           | 217           |  |
|                                                                  | 100 up to 150mm | 790           | 694           | 584           | 551           | 532           |  |
|                                                                  | 150mm or more   | 622           | 691           | 677           | 662           | 663           |  |
|                                                                  | no loft         | 677           | 624           | 625           | 607           | 536           |  |
|                                                                  | <b>total</b>    | <b>2,457</b>  | <b>2,335</b>  | <b>2,166</b>  | <b>2,086</b>  | <b>1,987</b>  |  |
| RSL                                                              | none            | 21            | 22            | 22            | 22            | 26            |  |
|                                                                  | less than 100mm | 212           | 208           | 197           | 185           | 162           |  |
|                                                                  | 100 up to 150mm | 495           | 494           | 526           | 495           | 469           |  |
|                                                                  | 150mm or more   | 490           | 506           | 604           | 703           | 801           |  |
|                                                                  | no loft         | 403           | 435           | 468           | 444           | 447           |  |
|                                                                  | <b>total</b>    | <b>1,621</b>  | <b>1,665</b>  | <b>1,817</b>  | <b>1,850</b>  | <b>1,904</b>  |  |
| all private                                                      | none            | 716           | 775           | 807           | 755           | 671           |  |
|                                                                  | less than 100mm | 5,326         | 5,187         | 5,027         | 4,634         | 4,452         |  |
|                                                                  | 100 up to 150mm | 6,454         | 6,376         | 6,185         | 6,276         | 6,194         |  |
|                                                                  | 150mm or more   | 3,718         | 4,115         | 4,497         | 5,071         | 5,683         |  |
|                                                                  | no loft         | 1,192         | 1,160         | 1,282         | 1,317         | 1,298         |  |
|                                                                  | <b>total</b>    | <b>17,406</b> | <b>17,613</b> | <b>17,798</b> | <b>18,053</b> | <b>18,298</b> |  |
| all social                                                       | none            | 53            | 50            | 50            | 64            | 64            |  |
|                                                                  | less than 100mm | 549           | 506           | 449           | 411           | 378           |  |
|                                                                  | 100 up to 150mm | 1,285         | 1,188         | 1,111         | 1,046         | 1,001         |  |
|                                                                  | 150mm or more   | 1,112         | 1,197         | 1,281         | 1,365         | 1,464         |  |
|                                                                  | no loft         | 1,079         | 1,060         | 1,093         | 1,051         | 983           |  |
|                                                                  | <b>total</b>    | <b>4,078</b>  | <b>4,000</b>  | <b>3,983</b>  | <b>3,936</b>  | <b>3,891</b>  |  |
| all dwellings                                                    | none            | 768           | 825           | 857           | 819           | 735           |  |
|                                                                  | less than 100mm | 5,875         | 5,693         | 5,475         | 5,045         | 4,830         |  |
|                                                                  | 100 up to 150mm | 7,739         | 7,564         | 7,295         | 7,322         | 7,195         |  |
|                                                                  | 150mm or more   | 4,830         | 5,311         | 5,778         | 6,436         | 7,148         |  |
|                                                                  | no loft         | 2,272         | 2,220         | 2,375         | 2,368         | 2,281         |  |
|                                                                  | <b>total</b>    | <b>21,484</b> | <b>21,613</b> | <b>21,781</b> | <b>21,989</b> | <b>22,189</b> |  |

| Annex Table 2A.8: Extent of double glazing by tenure, 1996-2007 |                                                                                       |                                                                  |                                                    |                                                                  |                                                                  |                                                                  |                                                                  |                                                                   |
|-----------------------------------------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------|
| owner occupied                                                  | no double glazing<br>less than half<br>more than half<br>entire house<br><b>total</b> | <b>1996</b><br>4,336<br>2,289<br>2,688<br>4,613<br><b>13,927</b> | 2001<br>2,649<br>1,602<br>2,676<br>7,872<br>14,798 | <b>2003</b><br>2,086<br>1,449<br>2,989<br>8,677<br><b>15,201</b> | <b>2004</b><br>1,762<br>1,331<br>2,907<br>9,279<br><b>15,279</b> | <b>2005</b><br>1,571<br>1,232<br>2,929<br>9,600<br><b>15,331</b> | <b>2006</b><br>1,466<br>1,188<br>2,931<br>9,856<br><b>15,442</b> | <b>2007</b><br>1,311<br>1,105<br>2,712<br>10,432<br><b>15,560</b> |
| private rented                                                  | no double glazing                                                                     | 1,293                                                            | 1,061                                              | 858                                                              | 761                                                              | 748                                                              | 737                                                              | 596                                                               |
|                                                                 | less than half                                                                        | 192                                                              | 201                                                | 253                                                              | 255                                                              | 259                                                              | 260                                                              | 273                                                               |
|                                                                 | more than half                                                                        | 162                                                              | 187                                                | 246                                                              | 299                                                              | 318                                                              | 340                                                              | 345                                                               |
|                                                                 | entire house                                                                          | 351                                                              | 722                                                | 848                                                              | 1,019                                                            | 1,142                                                            | 1,274                                                            | 1,524                                                             |
|                                                                 | <b>total</b>                                                                          | <b>1,998</b>                                                     | <b>2,172</b>                                       | <b>2,205</b>                                                     | <b>2,334</b>                                                     | <b>2,467</b>                                                     | <b>2,611</b>                                                     | <b>2,738</b>                                                      |
| local authority                                                 | no double glazing                                                                     | 2,095                                                            | 1,125                                              | 802                                                              | 680                                                              | 542                                                              | 450                                                              | 390                                                               |
|                                                                 | less than half                                                                        | 357                                                              | 249                                                | 206                                                              | 186                                                              | 140                                                              | 121                                                              | 104                                                               |
|                                                                 | more than half                                                                        | 147                                                              | 169                                                | 170                                                              | 149                                                              | 138                                                              | 138                                                              | 118                                                               |
|                                                                 | entire house                                                                          | 869                                                              | 1,270                                              | 1,279                                                            | 1,320                                                            | 1,346                                                            | 1,378                                                            | 1,375                                                             |
|                                                                 | <b>total</b>                                                                          | <b>3,469</b>                                                     | <b>2,812</b>                                       | <b>2,457</b>                                                     | <b>2,335</b>                                                     | <b>2,166</b>                                                     | <b>2,086</b>                                                     | <b>1,987</b>                                                      |
| RSL                                                             | no double glazing                                                                     | 525                                                              | 381                                                | 348                                                              | 295                                                              | 294                                                              | 286                                                              | 232                                                               |
|                                                                 | less than half                                                                        | 52                                                               | 58                                                 | 73                                                               | 64                                                               | 51                                                               | 64                                                               | 65                                                                |
|                                                                 | more than half                                                                        | 29                                                               | 63                                                 | 89                                                               | 77                                                               | 75                                                               | 84                                                               | 88                                                                |
|                                                                 | entire house                                                                          | 335                                                              | 922                                                | 1,111                                                            | 1,229                                                            | 1,398                                                            | 1,417                                                            | 1,518                                                             |
|                                                                 | <b>total</b>                                                                          | <b>941</b>                                                       | <b>1,424</b>                                       | <b>1,621</b>                                                     | <b>1,665</b>                                                     | <b>1,817</b>                                                     | <b>1,850</b>                                                     | <b>1,904</b>                                                      |
| all private                                                     | no double glazing                                                                     | 5,629                                                            | 3,710                                              | 2,944                                                            | 2,523                                                            | 2,319                                                            | 2,203                                                            | 1,906                                                             |
|                                                                 | less than half                                                                        | 2,481                                                            | 1,803                                              | 1,702                                                            | 1,586                                                            | 1,490                                                            | 1,449                                                            | 1,377                                                             |
|                                                                 | more than half                                                                        | 2,850                                                            | 2,863                                              | 3,236                                                            | 3,206                                                            | 3,247                                                            | 3,271                                                            | 3,057                                                             |
|                                                                 | entire house                                                                          | 4,965                                                            | 8,594                                              | 9,524                                                            | 10,298                                                           | 10,742                                                           | 11,130                                                           | 11,957                                                            |
|                                                                 | <b>total</b>                                                                          | <b>15,925</b>                                                    | <b>16,970</b>                                      | <b>17,406</b>                                                    | <b>17,613</b>                                                    | <b>17,798</b>                                                    | <b>18,053</b>                                                    | <b>18,298</b>                                                     |
| all social                                                      | no double glazing                                                                     | 2,620                                                            | 1,505                                              | 1,149                                                            | 976                                                              | 835                                                              | 735                                                              | 622                                                               |
|                                                                 | less than half                                                                        | 410                                                              | 307                                                | 279                                                              | 250                                                              | 191                                                              | 185                                                              | 169                                                               |
|                                                                 | more than half                                                                        | 176                                                              | 232                                                | 259                                                              | 226                                                              | 213                                                              | 221                                                              | 206                                                               |
|                                                                 | entire house                                                                          | 1,204                                                            | 2,192                                              | 2,390                                                            | 2,548                                                            | 2,744                                                            | 2,794                                                            | 2,893                                                             |
|                                                                 | <b>total</b>                                                                          | <b>4,410</b>                                                     | <b>4,236</b>                                       | <b>4,078</b>                                                     | <b>4,000</b>                                                     | <b>3,983</b>                                                     | <b>3,936</b>                                                     | <b>3,891</b>                                                      |
| all dwellings                                                   | no double glazing                                                                     | 8,250                                                            | 5,215                                              | 4,094                                                            | 3,498                                                            | 3,154                                                            | 2,938                                                            | 2,529                                                             |
|                                                                 | less than half                                                                        | 2,890                                                            | 2,110                                              | 1,981                                                            | 1,837                                                            | 1,681                                                            | 1,634                                                            | 1,547                                                             |
|                                                                 | more than half                                                                        | 3,026                                                            | 3,095                                              | 3,495                                                            | 3,432                                                            | 3,460                                                            | 3,492                                                            | 3,263                                                             |
|                                                                 | entire house                                                                          | 6,169                                                            | 10,787                                             | 11,915                                                           | 12,846                                                           | 13,486                                                           | 13,924                                                           | 14,850                                                            |
|                                                                 | <b>total</b>                                                                          | <b>20,335</b>                                                    | <b>21,207</b>                                      | <b>21,484</b>                                                    | <b>21,613</b>                                                    | <b>21,781</b>                                                    | <b>21,989</b>                                                    | <b>22,189</b>                                                     |
| Base: all dwellings                                             |                                                                                       |                                                                  |                                                    |                                                                  |                                                                  |                                                                  |                                                                  |                                                                   |
# Annex Table 2A.9: EPC recommended energy efficient improvement measures by tenure, 2007

|                                                                   | owner<br>occupied | private<br>rented | local<br>authority | RSL   | all<br>dwellings |
|-------------------------------------------------------------------|-------------------|-------------------|--------------------|-------|------------------|
| size of applicable group (000s)                                   |                   |                   |                    |       |                  |
| loft insulation                                                   | 14 833            | 2 167             | 1 451              | 1 457 | 19 908           |
| cavity wall insulation                                            | 11.046            | 1.451             | 1,489              | 1,541 | 15.527           |
| hot water cylinder insulation                                     | 9.742             | 1,485             | 1,283              | 1,202 | 13,711           |
| heating controls                                                  | 14.220            | 2,112             | 1.659              | 1.507 | 19,499           |
| boiler upgrade                                                    | 14.053            | 2.091             | 1.625              | 1.489 | 19,258           |
| storage heater upgrade                                            | 1,284             | 550               | 212                | 275   | 2,322            |
| hot water cylinder thermostat                                     | 9,742             | 1,485             | 1,283              | 1,202 | 13,711           |
| number of dwellings that would<br>benefit from the measure (000s) |                   |                   |                    |       |                  |
| loft insulation                                                   | 6,782             | 1,053             | 525                | 510   | 8,871            |
| cavity wall insulation                                            | 5,168             | 816               | 617                | 488   | 7,088            |
| hot water cylinder insulation                                     | 2,558             | 541               | 442                | 333   | 3,874            |
| heating controls                                                  | 6,131             | 772               | 480                | 401   | 7,784            |
| boiler upgrade                                                    | 11,339            | 1,727             | 1,232              | 1,157 | 15,455           |
| storage heater upgrade                                            | 194               | 96                | 36                 | 35    | 361              |
| hot water cylinder thermostat                                     | 1,273             | 201               | 262                | 149   | 1,884            |
| percentage of applicable group (%)                                |                   |                   |                    |       |                  |
| loft insulation                                                   | 45.7              | 48.6              | 36.2               | 35.0  | 44.6             |
| cavity wall insulation                                            | 46.8              | 56.2              | 41.4               | 31.6  | 45.6             |
| hot water cylinder insulation                                     | 26.3              | 36.4              | 34.4               | 27.7  | 28.3             |
| heating controls                                                  | 43.1              | 36.5              | 29.0               | 26.6  | 39.9             |
| boiler upgrade                                                    | 80.7              | 82.6              | 75.8               | 77.7  | 80.3             |
| storage heater upgrade                                            | 15.1              | 17.5              | 17.0               | 12.7  | 15.6             |
| hot water cylinder thermostat                                     | 13.1              | 13.5              | 20.4               | 12.4  | 13.7             |
| Base: all dwellings, with different limit                         | ations on each    | improveme         | ent category       | /     |                  |

# Annex Table 2A.10: EPC recommended energy efficient improvement measures by construction date, 2007

|                                         | pre-<br>1919 | 1919-44   | 1945-64   | 1965-80 | 1981-90 | post<br>1990 |
|-----------------------------------------|--------------|-----------|-----------|---------|---------|--------------|
| size of applicable group (000s)         |              |           |           |         |         |              |
| loft insulation                         | 4,276        | 3,674     | 3,955     | 4,129   | 1,600   | 2,275        |
| cavity wall insulation                  | 774          | 2,250     | 3,778     | 4,467   | 1,816   | 2,443        |
| hot water cylinder insulation           | 2,310        | 2,129     | 2,757     | 3,294   | 1,394   | 1,828        |
| heating controls                        | 4,122        | 3,587     | 3,940     | 4,105   | 1,498   | 2,247        |
| boiler upgrade                          | 4,119        | 3,585     | 3,910     | 3,930   | 1,472   | 2,242        |
| storage heater upgrade                  | 595          | 248       | 367       | 521     | 333     | 259          |
| hot water cylinder thermostat           | 2,310        | 2,129     | 2,757     | 3,294   | 1,394   | 1,828        |
| number of dwellings that would          |              |           |           |         |         |              |
| benefit from the measure (000s)         |              |           |           |         |         |              |
| loft insulation                         | 1,594        | 1,598     | 1,809     | 2,207   | 942     | 721          |
| cavity wall insulation                  | 616          | 1,378     | 1,866     | 2,475   | 752     | -            |
| hot water cylinder insulation           | 675          | 641       | 885       | 1,146   | 314     | 212          |
| heating controls                        | 1,323        | 1,454     | 1,769     | 1,899   | 647     | 692          |
| boiler upgrade                          | 3,221        | 2,922     | 3,141     | 3,161   | 1,193   | 1,817        |
| storage heater upgrade                  | 89           | 24        | 52        | 103     | 61      | 33           |
| hot water cylinder thermostat           | 224          | 320       | 466       | 653     | 139     | 81           |
| percentage of applicable group (%)      |              |           |           |         |         |              |
| loft insulation                         | 37.3         | 43.5      | 45.7      | 53.5    | 58.9    | 31.7         |
| cavity wall insulation                  | 79.6         | 61.2      | 49.4      | 55.4    | 41.4    | 0.0          |
| hot water cylinder insulation           | 29.2         | 30.1      | 32.1      | 34.8    | 22.5    | 11.6         |
| heating controls                        | 32.1         | 40.5      | 44.9      | 46.3    | 43.2    | 30.8         |
| boiler upgrade                          | 78.2         | 81.5      | 80.3      | 80.4    | 81.1    | 81.0         |
| storage heater upgrade                  | 14.9         | 9.7       | 14.3      | 19.8    | 18.2    | 12.6         |
| hot water cylinder thermostat           | 9.7          | 15.0      | 16.9      | 19.8    | 10.0    | 4.4          |
| Base: all dwellings, with different lim | itations on  | each impr | ovement c | ategory |         |              |

# Annex Table 2A.11: EPC recommended energy efficient improvement measures by dwelling type, 2007

|                                                                              | end<br>terrace          | mid<br>terrace          | semi<br>detached        | detached                | bungalow                | converted<br>flat    | purpose<br>built<br>flat, low<br>rise | purpose<br>built<br>flat,<br>high rise |
|------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|----------------------|---------------------------------------|----------------------------------------|
| size of<br>applicable<br>group (000s)                                        |                         |                         |                         |                         |                         |                      |                                       |                                        |
| loft insulation<br>cavity wall                                               | 2,082                   | 4,158                   | 6,103                   | 3,973                   | 2,102                   | 354                  | 1,093                                 | 42                                     |
| insulation<br>hot water<br>cylinder                                          | 1,326                   | 2,030                   | 4,594                   | 3,309                   | 1,841                   | 110                  | 2,168                                 | 150                                    |
| insulation<br>heating controls<br>boiler upgrade<br>storage heater           | 1,171<br>1,910<br>1,886 | 2,215<br>3,714<br>3,653 | 3,671<br>5,718<br>5,681 | 3,109<br>3,864<br>3,817 | 1,363<br>1,901<br>1,881 | 304<br>575<br>575    | 1,625<br>1,676<br>1,635               | 254<br>141<br>130                      |
| upgrade<br>hot water<br>cvlinder                                             | 164                     | 430                     | 378                     | 108                     | 184                     | 152                  | 806                                   | 100                                    |
| thermostat                                                                   | 1,171                   | 2,215                   | 3,671                   | 3,109                   | 1,363                   | 304                  | 1,625                                 | 254                                    |
| dwellings that<br>would benefit<br>from the<br>measure (000s)                |                         |                         |                         |                         |                         |                      |                                       |                                        |
| loft insulation                                                              | 749                     | 1,869                   | 2,601                   | 1,654                   | 1,262                   | 185                  | 550                                   | 1                                      |
| insulation<br>hot water<br>cylinder                                          | 601                     | 1,087                   | 2,312                   | 1,181                   | 692                     | 90                   | 1,014                                 | 112                                    |
| insulation<br>heating controls<br>boiler upgrade                             | 355<br>653<br>1,554     | 758<br>1,700<br>3,001   | 1,051<br>2,665<br>4,613 | 415<br>1,714<br>2,953   | 400<br>619<br>1,441     | 133<br>68<br>474     | 672<br>335<br>1,306                   | 88<br>30<br>112                        |
| upgrade<br>hot water                                                         | 25                      | 43                      | 57                      | 25                      | 46                      | 26                   | 123                                   | 17                                     |
| thermostat                                                                   | 180                     | 435                     | 615                     | 159                     | 218                     | 43                   | 218                                   | 18                                     |
| percentage of<br>applicable<br>group (%)                                     | 26.0                    | 44.0                    | 12.6                    | 116                     | 60.1                    | E2 2                 | 50.2                                  | 2.4                                    |
| cavity wall<br>insulation<br>hot water                                       | 45.3                    | 53.6                    | 50.3                    | 35.7                    | 37.6                    | 81.6                 | 46.8                                  | 74.4                                   |
| cylinder<br>insulation<br>heating controls<br>boiler upgrade                 | 30.3<br>34.2<br>82 4    | 34.2<br>45.8<br>82 2    | 28.6<br>46.6<br>81.2    | 13.3<br>44.4<br>774     | 29.3<br>32.5<br>76.6    | 43.9<br>11.8<br>82.4 | 41.4<br>20.0<br>79.9                  | 34.8<br>21.4<br>86.2                   |
| storage heater<br>upgrade<br>hot water                                       | 15.2                    | 10.0                    | 15.1                    | 23.3                    | 24.8                    | 17.2                 | 15.2                                  | 17.2                                   |
| cylinder<br>thermostat                                                       | 15.3                    | 19.6                    | 16.7                    | 5.1                     | 16.0                    | 14.2                 | 13.4                                  | 7.1                                    |
| Base: all dwellings, with different limitations on each improvement category |                         |                         |                         |                         |                         |                      |                                       |                                        |

# Annex Table 2A.12: EPC recommended energy efficient improvement measures by grouped regional area, 2007

|                                                                | northern<br>regions | south east<br>regions | rest of<br>England |
|----------------------------------------------------------------|---------------------|-----------------------|--------------------|
| size of applicable group (000s)                                |                     |                       |                    |
| loft insulation                                                | 6.056               | 5 479                 | 8 373              |
| cavity wall insulation                                         | 4,967               | 4,192                 | 6 368              |
| hot water cylinder insulation                                  | 3.283               | 4.465                 | 5,964              |
| heating controls                                               | 5,784               | 5,857                 | 7,858              |
| boiler upgrade                                                 | 5,736               | 5,770                 | 7,751              |
| storage heater upgrade                                         | 561                 | 736                   | 1,026              |
| hot water cylinder thermostat                                  | 3,283               | 4,465                 | 5,964              |
| number of dwellings that would benefit from the measure (000s) |                     |                       |                    |
| loft insulation                                                | 2,297               | 2,559                 | 4,014              |
| cavity wall insulation                                         | 2,173               | 2,219                 | 2,696              |
| hot water cylinder insulation                                  | 1,220               | 1,043                 | 1,611              |
| heating controls                                               | 2,652               | 2,064                 | 3,069              |
| boiler upgrade                                                 | 4,567               | 4,753                 | 6,135              |
| storage heater upgrade                                         | 52                  | 110                   | 200                |
| hot water cylinder thermostat                                  | 704                 | 399                   | 781                |
| percentage of applicable group (%)                             |                     |                       |                    |
| loft insulation                                                | 37.9                | 46.7                  | 47.9               |
| cavity wall insulation                                         | 43.7                | 52.9                  | 42.3               |
| hot water cylinder insulation                                  | 37.2                | 23.3                  | 27.0               |
| heating controls                                               | 45.8                | 35.2                  | 39.1               |
| boiler upgrade                                                 | 79.6                | 82.4                  | 79.1               |
| storage heater upgrade                                         | 9.2                 | 15.0                  | 19.5               |
| hot water cylinder thermostat                                  | 21.4                | 8.9                   | 13.1               |
| Base: all dwellings, with different limitations on each in     | nprovement cat      | egory                 |                    |

# Annex Table 2A.13: EPC recommended energy efficient improvement measures by area type, 2007

|                                                                      | city<br>centre | other<br>urban<br>centre | suburban<br>residential | rural<br>residential | village<br>centre | rural |
|----------------------------------------------------------------------|----------------|--------------------------|-------------------------|----------------------|-------------------|-------|
| size of applicable group (000s)                                      |                |                          |                         |                      |                   |       |
| loft insulation                                                      | 422            | 3,251                    | 12,089                  | 2,566                | 850               | 729   |
| cavity wall insulation                                               | 266            | 2,070                    | 10,167                  | 2,138                | 543               | 343   |
| hot water cylinder insulation                                        | 364            | 2,089                    | 8,128                   | 1,901                | 621               | 608   |
| heating controls                                                     | 482            | 3,452                    | 11,856                  | 2,371                | 717               | 620   |
| boiler upgrade                                                       | 479            | 3,423                    | 11,685                  | 2,344                | 715               | 613   |
| storage heater upgrade                                               | 125            | 565                      | 1,105                   | 272                  | 154               | 101   |
| hot water cylinder thermostat                                        | 364            | 2,089                    | 8,128                   | 1,901                | 621               | 608   |
| number of dwellings that<br>would benefit from the<br>measure (000s) | 163            | 1 295                    | 5 519                   | 1 163                | 397               | 33/   |
|                                                                      | 138            | 1,200                    | 4 538                   | 836                  | 242               | 100   |
| hot water cylinder insulation                                        | 100            | 745                      | 2 359                   | 416                  | 138               | 98    |
| heating controls                                                     | 142            | 1 134                    | 2,000<br>4 935          | 982                  | 301               | 290   |
| boiler upgrade                                                       | 417            | 2 817                    | 9,617                   | 1 757                | 527               | 321   |
| storage beater upgrade                                               | 18             | 62                       | 143                     | 76                   | .36               | 26    |
| hot water cylinder thermostat                                        | 34             | 277                      | 1,275                   | 207                  | 62                | 30    |
| percentage of applicable<br>group (%)                                |                |                          |                         |                      |                   |       |
| loft insulation                                                      | 38.6           | 39.8                     | 45.7                    | 45.3                 | 46.7              | 45.8  |
| cavity wall insulation                                               | 51.9           | 54.8                     | 44.6                    | 39.1                 | 44.6              | 57.9  |
| hot water cylinder insulation                                        | 32.1           | 35.7                     | 29.0                    | 21.9                 | 22.2              | 16.2  |
| heating controls                                                     | 29.5           | 32.9                     | 41.6                    | 41.4                 | 42.0              | 46.7  |
| boiler upgrade                                                       | 87.0           | 82.3                     | 82.3                    | 75.0                 | 73.7              | 52.5  |
| storage heater upgrade                                               | 14.4           | 11.1                     | 12.9                    | 27.8                 | 23.6              | 25.7  |
| hot water cylinder thermostat                                        | 9.2            | 13.2                     | 15.7                    | 10.9                 | 10.0              | 4.9   |
| Base: all dwellings, with different lin                              | mitations on   | each improve             | ement category          |                      |                   |       |

# Chapter 3: Disrepair

Disrepair is the 'Forth Bridge' of housing investment – a never ending battle to keep up with deterioration. Deterioration can be caused by a number of factors – one of the most important of these is the simple passage of time. As key building elements get older, the materials and components deteriorate to a stage where they are no longer economic or practical to repair. How quickly elements deteriorate in different buildings depends on a number of factors. These include:

- the quality of the original materials and workmanship
- how quickly urgent repairs like leaks are fixed
- the frequency and quality of any ongoing preventive maintenance e.g. painting external timber, servicing boilers
- the degree of exposure to harsh physical and chemical environments e.g. driving rain, frost, salt laden air
- use (and abuse) by occupants.

This chapter looks at the incidence of repair faults across the housing stock, the total expenditure required to deal with general disrepair in the stock in 2007 and how this breaks down by tenure and by type of building component. It then explores which groups of dwellings are most likely to be in substantive disrepair and how disrepair has changed since 1996 (with a particular focus on the private rented sector). The chapter then looks at some key aspects of the dynamics of disrepair that underpin these trends, examining: the age of building components in different sections of the housing stock, the extent of vandalism in shared facilities and common parts of flats; and the level and type of investment in the owner occupied stock and how far repair activity is targeted at those dwellings most in need of work.

# **Key Findings**

- Some 56% of all homes had one or more faults to the exterior fabric of the property in 2007, the most common relating to the wall finish and windows. One third of the housing stock had interior faults, the most common relating to ceilings.
- The average cost of carrying out all basic repairs to the stock was £1,820 per dwelling at 2007 prices which equates to a total repair bill of over £40 billion. However half of all homes had basic repairs costing £470 or less.
- To carry out all repairs and replacements needed within ten years was estimated to cost an average of £4,000 per dwelling. However for half the stock this could be achieved for £1,470 or less.

- Some 89% of this total repair bill related to private sector homes and the majority (64%) was for repairs to the external fabric of the dwelling.
- Levels of disrepair were highest for converted flats, pre-1919 dwellings, private rented homes, and those situated in urban or city centres, the northern regions and most deprived districts. They were also generally highest for households where everyone was aged under 25, those from ethnic minorities and where the household reference person was unemployed.
- Levels of urgent and basic repairs had roughly halved in real terms since 1996 with the biggest reductions apparent in the private rented sector and for homes in urban and city centres.
- There had been a smaller, but still noticeable, reduction of 23% in the average comprehensive repair cost since 1996. Reductions in comprehensive repair between 2002 and 2007 were particularly marked for dwellings in Market Renewal Pathfinder areas.
- Local authority homes had seen large amounts of investment as part of the Decent Homes programme although the proportion of old kitchens and bathrooms in this sector was higher than in any other tenure.
- Kitchens, bathrooms, central heating and windows were, on average, older in flats than in houses in both the private and social sectors.
- Vandalism to communal areas accounted for at least 38% of the costs of repairs needed to these facilities in the social sector.
- The large improvement of the private rented sector was caused by increased investment which was particularly evident in those properties that were new to the sector.
- In the owner occupied sector, work had generally been targeted at elements in the worst condition. Around two thirds (68%) of homes in relatively poor condition in 2004 had improved significantly by 2007. Poor condition homes occupied by wealthier households, couples with children and in rural areas were more likely to have improved than those occupied by vulnerable or less wealthy households and those in urban areas.

# **Incidence of repair faults**

Just over half (56%) of homes had faults to their exterior fabric in 2007. The elements most likely to be affected were wall finish (pointing, rendering, cladding etc.) or windows, Table 3.1. Overall, homes were less likely to have faults to the interior fabric (33%) and these were most commonly associated with ceilings.

| Table 3.1: Percentage of homes with faults to different building components, 2007 |                         |                                      |            |  |  |
|-----------------------------------------------------------------------------------|-------------------------|--------------------------------------|------------|--|--|
| component                                                                         | % of stock              | component                            | % of stock |  |  |
| exterior fabric                                                                   |                         | interior fabric                      |            |  |  |
| wall finish                                                                       | 23.7                    | ceilings                             | 18.1       |  |  |
| windows/frames                                                                    | 20.1                    | walls                                | 14.2       |  |  |
| roof covering                                                                     | 16.9                    | doors                                | 11.8       |  |  |
| chimney stacks                                                                    | 16.5                    | floors                               | 7.0        |  |  |
| gutters/downpipes                                                                 | 14.1                    | any interior faults                  | 33.2       |  |  |
| doors/frames                                                                      | 12.5                    |                                      |            |  |  |
| fascias                                                                           | 12.3                    | building structure                   |            |  |  |
| wall structure                                                                    | 5.6                     | any structural faults                | 10.5       |  |  |
| stacks/wastes                                                                     | 5.6                     |                                      |            |  |  |
| valley gutter                                                                     | 4.8                     | services and amenities               |            |  |  |
| roof structure                                                                    | 4.1                     | fences                               | 16.0       |  |  |
| bays                                                                              | 3.4                     | kitchen                              | 13.7       |  |  |
| damp proof course                                                                 | 3.3                     | gas and electricity services         | 10.4       |  |  |
| porches                                                                           | 2.2                     | boundary walls                       | 10.2       |  |  |
| conservatories                                                                    | 1.8                     | bathroom                             | 9.1        |  |  |
| party parapets                                                                    | 0.9                     | central heater boiler/distribution   | 5.1        |  |  |
| dormers                                                                           | 0.8                     | other heating                        | 3.2        |  |  |
| balconies                                                                         | 0.4                     | hot water                            | 2.3        |  |  |
| any exterior faults                                                               | 56.5                    |                                      |            |  |  |
| Base: all dwellings<br>Note: percentages relate to all dw                         | ellings and not just to | o those with the particular element. |            |  |  |

Around one in six (18%) of flats had some faults in the common areas; most frequently in the staircases, Table 3.2. Within common areas, faults were most often associated with walls and ceilings e.g. damaged plasterwork. In addition, over a third (38%) of flats had some faults to shared facilities – most commonly to landscaping.

# Table 3.2: Percentage of flats with faults to different components of common areas and shared facilities, 2007

| component                                                                                                                                                                       | % of flats | component                       | % of flats |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------------|------------|--|--|
| common areas                                                                                                                                                                    |            | shared facilities               |            |  |  |
| walls                                                                                                                                                                           | 8.2        | landscaping                     | 30.2       |  |  |
| ceilings                                                                                                                                                                        | 6.6        | communal parking                | 11.9       |  |  |
| floors                                                                                                                                                                          | 5.8        | stores/common rooms             | 10.6       |  |  |
| access doors                                                                                                                                                                    | 5.0        | surfaces/fences                 | 9.7        |  |  |
| access windows                                                                                                                                                                  | 3.7        | common electrical services      | 4.6        |  |  |
| access lighting                                                                                                                                                                 | 3.0        | any faults in shared facilities | 38.4       |  |  |
| balustrades                                                                                                                                                                     | 2.5        |                                 |            |  |  |
| any faults in stairways                                                                                                                                                         | 11.4       |                                 |            |  |  |
| any faults in common areas<br>generally                                                                                                                                         | 17.8       |                                 |            |  |  |
| Base: all flats (excludes any common areas or shared facilities for houses)<br>Note: percentages relate to all flats and not just those with common areas or shared facilities. |            |                                 |            |  |  |

The incidence of all types of faults decreased between 1996 and 2007, Figures 3.1 and 3.2. The breakdown of faults within these broad categories was remarkably constant through the period – wall finish and windows being the exterior components most likely to have faults over the entire period and ceilings being the most common interior component with a fault.





Looking specifically at flats, there was also a reduction in the incidence of faults in common areas and to shared facilities since 1996, Figure 3.3.



72% of flats have common areas, and 77% of flats have shared facilities.

# Categories of repair and required expenditure

The survey distinguishes between three different levels and types of repairs needed (Box 1).

| Box 1: Categories of repair measured in the survey                                                                                                                                        |                                                                                                                                                                                                                                                                  |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| urgent repairs                                                                                                                                                                            | work which needs to be undertaken to tackle problems<br>presenting a risk of health, safety, security or further<br>significant deterioration in the short term, examples include<br>leaking roofs, broken locks to external doors and cracked<br>socket covers. |  |  |  |  |
| basic repairs                                                                                                                                                                             | any urgent repairs plus additional visible work to be carried out in the medium term.                                                                                                                                                                            |  |  |  |  |
| comprehensive repairs                                                                                                                                                                     | the above two categories plus any replacements the<br>surveyor has assessed as being needed in the next 10<br>years. (Note: In the 2003 EHCS Annual Report<br>comprehensive repair costs were referred to as general<br>repair costs.)                           |  |  |  |  |
| Repair costs are based on a snapshot of the housing stock at the time of the survey.<br>Details of how information is collected by surveyors is provided in the EHCS Technical<br>Report. |                                                                                                                                                                                                                                                                  |  |  |  |  |

Table 3.3 illustrates the average expenditure needed to carry out different levels of repairs to the stock. These are referred to as 'required expenditure' and represent the best estimate of what the work would actually cost (see Box 2 below for a description of how these are calculated). It is also likely that these costs underestimate the required expenditure on shared facilities and common areas due to insufficient information on the extent and type of shared facilities present on large estates.

The average cost of carrying out all basic repairs to the stock was £1,820 per dwelling at 2007 prices which equates to a total repair bill of over £40 billion. However half of all homes had basic repairs costing £470 or less. At the other end of the scale 10% of homes required expenditure of £4,750 or more to deal with basic repairs, Table 3.3.

| Table 3.3: Average and total required expenditure to remedy disrepair, 2007 |          |            |                   |  |  |  |
|-----------------------------------------------------------------------------|----------|------------|-------------------|--|--|--|
|                                                                             | mean (£) | median (£) | total (£ billion) |  |  |  |
| urgent repairs                                                              | 1,147    | 92         | 25.4              |  |  |  |
| basic repairs                                                               | 1,820    | 470        | 40.4              |  |  |  |
| comprehensive repairs                                                       | 4,001    | 1,470      | 88.8              |  |  |  |
| Base: all dwellings<br>Note: all dwellings at 2007 prices                   |          |            |                   |  |  |  |

Disrepair in the private housing sector (owner occupied and private rented stock) accounted for the bulk (89%) of the required expenditure, Figure 3.4. The private rented sector alone accounted for 20% of total required expenditure while comprising only 12% of homes.



For the stock as a whole, repairs to the external fabric accounted for about two thirds (64%) of the required expenditure with most of the rest split fairly evenly between repairs to the internal fabric (19%) and those needed to amenities and services (16%), Figure 3.5. The breakdown was rather different for flats, especially social sector flats where only just over a third (37%) of required expenditure related to external fabric with significantly higher than average proportions required to deal with disrepair to amenities and services (32%) and to common areas and shared facilities<sup>1</sup> (12%).

<sup>&</sup>lt;sup>1</sup> Common areas are concerned with all shared areas and services inside blocks of flats e.g. corridors, staircases and lifts. Shared facilities refer to shared areas on estates or shared plots e.g. parking bays, CCTV, bin stores, grass/planting etc.



Examining external fabric costs in more detail showed that the highest proportion of costs was accounted for by roof works (29%), external walls (25%) and windows and doors (22%). This varies considerably by dwelling type and tenure but particularly for social sector flats where almost half (46%) of external fabric costs were for windows and doors, Figure 3.6.



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## Amount and distribution of disrepair in 2007

This section assesses how disrepair varies across different sub-sections of the housing stock and identifies where the highest levels of disrepair are found.

*'Required expenditure costs'*, as used in Table 3.3 are affected by differences in unit prices by region and tenure. They are also unadjusted for floor area so will be higher for larger dwellings. This section of the chapter uses an index of disrepair, referred to as *'standardised repair costs'* to compare dwellings of different sizes and in different tenures and areas on the same basis. All costs are at 2007 prices (see Box 2).<sup>2</sup>

#### Box 2: Repair cost measures

**Required expenditure** – total cost per dwelling in pounds that represents the best estimate of what the specified work would actually cost. These costs are influenced by regional variations in prices and assume different project sizes for work to houses in different tenures. In the owner occupied and private rented sector the contract size for work to houses is taken to be one. In the social rented sector, the contract size is taken as the number of dwellings on the estate unless the house is not on an estate and therefore assumed to be a street property with a contract size of one. For flats, the contract size for exterior works is the size of the block regardless of tenure. This measure assumes that all work is carried out by contractors who operate to health and safety regulations. The costs do not include any VAT or mark up for profit. These costs should not be used for assessing differences in condition between different tenures or dwelling types as they vary according to dwelling size tenure and location.

**Standardised repair costs** – this is an index of disrepair, that expresses costs in pounds per square metre  $(f/m^2)$  based on 2007 prices for the East Midland region (where prices can be regarded as a mid point in the range of regional prices).

Under the standardised repair cost measure it is assumed that all work is undertaken by contractors on a block contract basis. For flats, the size of the contract is assumed to be the whole block and for all houses it is taken as a group of five dwellings, representing costs more closely associated with those which may be incurred by a landlord organising the work on a planned programme basis. By reducing costs to a £/m<sup>2</sup> basis the effect of building size on the amount of disrepair recorded is omitted, otherwise the extent of disrepair measured is substantially driven by the size of the building. Standardised repair costs should not be used as an indication of expenditure required to remedy problems.

Further details are provided in the EHCS Technical Report.

<sup>&</sup>lt;sup>2</sup> Annex Tables 3A.1 to 3A.3 provide the average required expenditure and average standardised costs for different groups of dwellings and households.

Standardised repair costs vary considerably by dwelling characteristics with much higher averages apparent for dwellings built before 1919, private rented dwellings, converted flats and housing in the most deprived areas. Dwelling age is a particularly significant factor. The average comprehensive repair cost for a home built after 1980 was £13/m<sup>2</sup> with half of this age category having a zero cost and 8% having costs of over £50/m<sup>2</sup>. The corresponding figures for pre-1919 homes were an average comprehensive standardised cost of £66/m<sup>2</sup> with just 10% having a zero cost and 42% having costs in excess of £50/m<sup>2</sup>.

The average comprehensive standardised cost was particularly high for converted flats at  $\pm$ 70/m<sup>2</sup>. Just 9% of these homes had a zero cost and 45% had costs in excess of  $\pm$ 50/m<sup>2</sup>. In contrast, the average equivalent cost for a detached house was  $\pm$ 25/m<sup>2</sup> and 36% of such homes had a zero comprehensive cost.

The average comprehensive costs for private rented dwellings ( $\pounds$ 62/m<sup>2</sup>) was double those owned by RSL's ( $\pounds$ 31/m<sup>2</sup>). Some 39% of private rented homes had costs in excess of  $\pounds$ 50/m<sup>2</sup>, Figure 3.7.



These differences were not simply a function of the high proportion of pre-1919 homes in this tenure. When controlling for dwelling age, private rented dwellings still had significantly higher levels of disrepair than homes in the owner occupied or social rented sectors, Table 3.4. The average basic standardised repair cost for a pre-1919 private rented home was £52/m<sup>2</sup> compared with £29 and £34 for owner occupied and social rented homes of the same age.

| Table 3.4: Average standardised costs by dwelling age and tenure, 2007             |                |                  |                 |                         |  |
|------------------------------------------------------------------------------------|----------------|------------------|-----------------|-------------------------|--|
|                                                                                    |                | urgent<br>(£/m²) | basic<br>(£/m²) | comprehensive<br>(£/m²) |  |
| pre-1919                                                                           | owner occupied | £17              | £29             | £59                     |  |
|                                                                                    | private rented | £36              | £52             | £88                     |  |
|                                                                                    | social rented  | £25              | £34             | £65                     |  |
| post 1919                                                                          | owner occupied | £7               | £11             | £32                     |  |
|                                                                                    | private rented | £13              | £18             | £43                     |  |
|                                                                                    | social rented  | £12              | £15             | £37                     |  |
| Base: all dwellings<br>Note: all dwellings using standardised costs at 2007 prices |                |                  |                 |                         |  |

There was little difference in average standardised urgent or basic costs by region, although the average comprehensive cost was higher for homes in northern regions (£47/m<sup>2</sup> compared with £41/m<sup>2</sup> in the south east regions and £37/m<sup>2</sup> in the rest of England). Focussing on pre-1919 dwellings, homes in the south east regions had lower average urgent, basic and comprehensive costs than those located elsewhere, Table 3.5.

| Table 3.5: Average standardised costs by dwelling age and region, 2007             |                    |                  |                 |                         |  |  |
|------------------------------------------------------------------------------------|--------------------|------------------|-----------------|-------------------------|--|--|
|                                                                                    |                    | urgent<br>(£/m²) | basic<br>(£/m²) | comprehensive<br>(£/m²) |  |  |
| pre-1919                                                                           | northern regions   | £22              | £35             | £75                     |  |  |
|                                                                                    | south east regions | £20              | £32             | £60                     |  |  |
|                                                                                    | rest of England    | £22              | £37             | £65                     |  |  |
| post 1919                                                                          | northern regions   | £8               | £12             | £39                     |  |  |
|                                                                                    | south east regions | £9               | £13             | £35                     |  |  |
|                                                                                    | rest of England    | £8               | £12             | £31                     |  |  |
| Base: all dwellings<br>Note: all dwellings using standardised costs at 2007 prices |                    |                  |                 |                         |  |  |

Average standardised costs varied more by type of area from an average of £37/m<sup>2</sup> for dwellings in suburban areas, £42/m<sup>2</sup> in rural and £53/m<sup>2</sup> in city and other urban centres, Annex Table 3A.2. Rural and suburban residential areas had similar distributions of comprehensive repair costs. However those in city and other urban centres looked rather different with just 16% having a zero cost and 35% with costs in excess of £50/m<sup>2</sup>.

Although city and other urban centres contain a higher proportion of older homes, when dwelling age is taken into account, average costs for all three types of repairs remain systematically higher for homes in these areas, Table 3.6.

| Table 3.6: Average standardised costs by dwelling age and area, 2007               |                              |                  |                 |                         |  |
|------------------------------------------------------------------------------------|------------------------------|------------------|-----------------|-------------------------|--|
|                                                                                    |                              | urgent<br>(£/m²) | basic<br>(£/m²) | comprehensive<br>(£/m²) |  |
| pre-1919                                                                           | city and other urban centres | £24              | £37             | £71                     |  |
|                                                                                    | suburban residential areas   | £19              | £32             | £62                     |  |
|                                                                                    | rural areas                  | £21              | £34             | £63                     |  |
| post 1919                                                                          | city and other urban centres | £11              | £15             | £39                     |  |
|                                                                                    | suburban residential areas   | £8               | £11             | £33                     |  |
|                                                                                    | rural areas                  | £9               | £13             | £34                     |  |
| Base: all dwellings<br>Note: all dwellings using standardised costs at 2007 prices |                              |                  |                 |                         |  |

The level of disrepair increases with the level of area deprivation. The average cost for all three types of repair and the proportion of those with comprehensive costs over £50/m<sup>2</sup> were the highest for dwellings in the most deprived areas and lowest for those in the least deprived, Annex Table 3A.2. The trend for higher standardised costs in the most deprived areas is much more evident in the private sector than the social sector, Figure 3.8.



## Trends in disrepair since 1996

This section examines how the amount of disrepair in the stock has changed over the past eleven years and which parts of the stock have seen the greatest and least improvement. To examine real change independent of building price inflation, this section uses standardised costs (£/m<sup>2</sup>) converted to 2001 prices using the Building Cost Information Service (BCIS) National Index. As some of the year on year change in the level of disrepair arises from random fluctuations related to sampling and measurement errors, the focus of the section is on overall changes and trends over the eleven year period 1996 to 2007 rather than annual differences.

#### **Urgent repairs**

Urgent repairs present a risk to health, safety, security or threaten rapid deterioration of the building. Trends over time indicate how quickly these measures are being rectified. Overall, urgent repairs halved between 1996 and 2007, from an average of  $\pm 17/m^2$  to  $\pm 9/m^2$  at 2001 prices. The largest reductions were evident in the private rented sector, with average costs falling by about  $\pm 19/m^2$ , compared to approximately  $\pm 7/m^2$  in other tenures, Figure 3.9



The amount of urgent repairs reduced by a similar percentage within different dwelling age groups, with the notable exception of homes built between 1965 and 1980 where they had only reduced by 20%. Looking specifically at the pre-1919 stock, similar levels of improvement were evident for most dwelling types, except for flats where average costs between 1996 and 2007 dropped by around 40% compared with the 50% for all pre-1919 homes. Interestingly, urgent repairs reduced by around the same amount in private sector pre-1919 dwellings irrespective of the market value of the dwelling.

The reduction in average urgent repairs was similar across the three regional groups for England. Looking at homes built before and after 1919, it was apparent that costs for the pre-1919 stock, which were higher, were converging across the regional groups.

#### **Basic repairs**

A reduction in basic repairs indicates that individual dwellings are better maintained on a day to day basis. Overall, average standardised basic repair costs halved between 1996 and 2007 from  $\pm 24/m^2$  to  $\pm 13/m^2$  (at 2001 prices). Again the largest reductions were evident in the private rented sector, with average costs falling by about  $\pm 23/m^2$ , compared to  $\pm 7/m^2$  to  $\pm 10/m^2$  in other tenures. Nonetheless basic repair costs remained significantly higher in the private rented sector in 2007.

Like urgent repairs, basic repairs showed a much smaller than average reduction (23%) for homes built between 1965-1980. Focussing specifically on the pre-1919 stock, flats showed a smaller percentage reduction than houses. As with urgent repairs, the reduction in basic repair amongst private sector pre-1919 dwellings did not vary by market value.

Standardised basic costs reduced at similar rates between 1996-2007 in different types of areas (including Pathfinders) and in different regions although there was a slightly higher reduction in costs in the rest of England (51%) compared to northern (42%) and south east regions (41%). Looking at homes built before and after 1919, it is apparent that costs for the pre-1919 stock, which were higher, were converging in the different types of region due to the biggest reduction in the rest of England pre-1919 stock, Figure 3.10.



#### Comprehensive repairs

Comprehensive repair costs indicate how far a more strategic approach is being adopted towards refurbishing dwellings. The average standardised comprehensive repair cost reduced by about 23% between 1996 and 2007 from £46/m<sup>2</sup> to £36/m<sup>2</sup> (at 2001 prices). Again, the largest reductions were evident in the private rented sector, with average costs falling by about £23/m<sup>2</sup>. The smallest reductions were seen in RSL dwellings; partly because this sector has a large proportion of newer dwellings and the lowest costs to begin with and partly because it has taken ownership of a significant proportion of former local authority properties through large scale transfers.

Comprehensive repair costs reduced by roughly the same percentage in all dwelling age groups apart from those built between 1965 and 1980 where costs increased very slightly by three percent over this time period. This trend in average comprehensive costs for dwellings built between these years is apparent in both the private and the social sectors.

For the oldest (pre-1919 stock), the reductions in comprehensive costs vary by dwelling type. Average costs reduced by 32-34% for bungalows, semi-detached and detached houses compared with just 16-23% for flats and terraced houses, Figure 3.11.



For private sector pre-1919 dwellings, market values were related to the overall level of improvement in comprehensive repairs. Dwellings in the lowest 20% of value saw a 14% reduction in average costs compared with a 39% reduction in the highest value homes, Figure 3.12.



The more comprehensive maintenance of dwellings appears to have improved to the same degree in urban, suburban and rural areas. However, there were significant variations in the reduction in comprehensive repair across the three regional groups of England, with the highest reduction in costs in the rest of England and lowest in the northern regions. These disparities were particularly marked for pre-1919 dwellings where costs in the northern regions were reduced by just 8% between 1996 and 2007 compared with reductions of 28% in the south east and 35% in the rest of England, Figure 3.13.



Market Renewal Pathfinder areas saw a higher than average reduction in comprehensive repair (16% compared to the 10% average) from 2003 to 2007, Figure 3.14. Furthermore this fall was significantly higher than for dwellings located in the same regions as the Pathfinders (North East, North West, Yorkshire and Humberside and West Midlands) but outside the designated pathfinder areas. This improvement in the Pathfinder areas will reflect both repairs carried out and demolition of some of the worst stock.



## Improvement in the private rented sector

Although in 2007 all types of repair cost were on average higher in private rented homes, the sector improved much more than other sectors between 1996 and 2007. The two factors influencing this improvement are the movement of dwellings in and out of this sector; and investment by private landlords.

There have been some marked changes in the overall age and type profile of the private rented sector since 1996, Figure 3.15. The growth of the sector over this period (by some 37% from 2.0 million to over 2.7 million) was characterised by the net addition of homes built since 1945 and particularly by post-1980 properties. The latter almost trebled in number from 170,000 to nearly 0.5 million (some three times the rate of increase across all tenures). As a result there has been a shift in the overall profile of the sector over this period with the proportion of homes built before 1919 reducing from 52% to 41% and the proportion built after 1980 increasing from 8% to 18%. There also have been some changes in the types of dwellings in this sector; most notably a reduction in the proportion of converted flats from 19% in 1996 to 13% in 2007.



However, these net changes do not reflect the much greater turnover taking place in terms of the opposing flows of properties moving into and out of private renting.<sup>3</sup> Only 71% of homes that were privately let in 2007 were also privately rented in 2004, Figure 3.16. Most of the remainder were formerly owner occupied but with a small but significant number (around 90,000) of homes that were formerly social rented (homes that were originally purchased under Right to Buy that had been subsequently let out).

Homes that were privately rented in both 2004 and 2007, referred to here as 'core' private rented, were systematically different than those dwellings that moved in or out. The 'core' private rented sector was characterised by a higher proportion of older (pre-1919) dwellings. Some 44% of the 'core' private rented homes were built before 1919 compared with around 33% of those that moved in or out during this period.

<sup>3</sup> The analysis of net flows into and out of the private rented sector is based on the sub-sample of homes that were surveyed for the 2004 EHCS and revisited for the 2007 EHCS. This sub-sample is separately weighted and grossed to the 2007 housing stock that was also present in 2004 (i.e. it excludes housing that was built, demolished or subject to change of use during the period). See the Technical Report for details of the sub-sample of homes that were revisited.



Comparison of repair costs in 2004 and 2007 showed some differences between the core private rented stock and those moving tenure (either way) during this period. While there is no evidence that the core private rented stock was on average in a worse state of repair in 2004, there was much less improvement evident in the 'core' stock compared to homes where the tenure had changed between 2004 and 2007, Figure 3.17. The average basic repair cost for 'core' dwellings reduced by about £4/m<sup>2</sup> over this period compared to a reduction of £13/m<sup>2</sup> for those that moved out and £16/m<sup>2</sup> for those that moved into the private rented sector.



This indicates that homes moving in and out of this sector received, on average, much more investment in repairs than those that stayed in private renting over the three year period. The most likely factor explaining this improvement is owners carrying out repairs and improvements in anticipation of or immediately following the change in tenure. This emphasises the importance of the turnover in properties (change in ownership and tenure) to the improvement of the private rented sector.

## **Dynamics of disrepair – deterioration and investment**

The state of repair of the housing stock at any given time is principally the net balance of ongoing deterioration on the one hand set against investment in housing maintenance, repairs and improvements and demolition and new construction on the other. This section looks firstly at two factors associated with the deterioration of the housing stock – the ageing of building elements and vandalism to any common shared facilities or shared facilities present. It then looks at investment in the owner occupied stock and the extent to which work carried out is targeted at those homes most in need of repairs.

### Deterioration - the age of building elements

The older the element, the more likely it is to be in disrepair and in need of replacement. For most elements examined, the average age was higher in the private rented and local authority sectors compared with owner occupied and RSL homes in 2007, Table 3.7. The differences were particularly pronounced for kitchens and bathrooms in local authority dwellings and for windows in private rented homes.

| Table 3.7: Average age of element (years) by tenure, 2007 |        |                   |                   |                    |      |                  |  |
|-----------------------------------------------------------|--------|-------------------|-------------------|--------------------|------|------------------|--|
|                                                           |        | owner<br>occupied | private<br>rented | local<br>authority | RSL  | all<br>dwellings |  |
| kitchens                                                  | mean   | 12.0              | 14.2              | 16.2               | 12.7 | 12.7             |  |
|                                                           | median | 9                 | 12                | 14                 | 10   | 10               |  |
| bathrooms                                                 | mean   | 14.8              | 18.0              | 22.4               | 17.5 | 16.1             |  |
|                                                           | median | 10                | 16                | 22                 | 15   | 12               |  |
| central heating<br>boilers                                | mean   | 11.4              | 11.9              | 11.9               | 11.5 | 11.5             |  |
|                                                           | median | 9                 | 10                | 8                  | 9    | 9                |  |
| heating distribution                                      | mean   | 18.4              | 17.3              | 17.3               | 15.1 | 17.9             |  |
|                                                           | median | 20                | 15                | 16                 | 15   | 18               |  |
| windows                                                   | mean   | 12.9              | 19.1              | 14.1               | 12.7 | 13.8             |  |
|                                                           | median | 10                | 10                | 10                 | 10   | 10               |  |
| roof covering                                             | mean   | 33.2              | 38.8              | 35.8               | 28.9 | 33.7             |  |
|                                                           | median | 24                | 25                | 34                 | 24   | 25               |  |
| Base: all dwellings                                       |        |                   |                   |                    |      |                  |  |

The averages presented in Table 3.7 conceal a good deal of variability. In 2007, the average age of windows in the local authority sector was very similar to that in owner occupied and RSL homes. However, the local authority sector had the highest proportion of dwellings with windows that were 0-5 years old (35%) and the second highest proportion that were over 25 years old (15%), Figure 3.18.



A similarly more polarised position was evident with the age of kitchens in the local authority homes. A third (33%) of the local authority housing stock had kitchens less than five years old, Figure 3.19. However, the local authority stock also had a higher proportion of kitchens over 20 years old (38%) than any other tenure. Some 17% of kitchens in the local authority stock were 30 years old or more, compared to just 9% of RSL and 10% of private rented stock.



The local authority stock also had the highest proportion of older bathrooms with 41% being more than 25 years old (compared to 26% for private rented and RSL homes and 20% for those that were owner occupied) and 15% being 40 years or older, Figure 3.20. Owner occupied dwellings were the most likely to have very new bathrooms (36% were five years old or less).



As expected, older dwellings tend to have older windows and roof coverings, Table 3.8. However, they do not have older kitchens, bathrooms or heating systems than newer homes because these are more likely to have been replaced at least once during the life of the dwelling.

| Table 3.8: Average age of element (years) by dwelling age, 2007 |        |              |                 |                 |                 |               |                  |
|-----------------------------------------------------------------|--------|--------------|-----------------|-----------------|-----------------|---------------|------------------|
|                                                                 |        | pre-<br>1919 | 1919 to<br>1944 | 1945 to<br>1964 | 1965 to<br>1980 | post-<br>1980 | all<br>dwellings |
| kitchens                                                        | mean   | 13.0         | 13.2            | 13.8            | 13.6            | 9.8           | 12.7             |
|                                                                 | median | 10           | 10              | 10              | 10              | 8             | 10               |
| bathrooms                                                       | mean   | 16.3         | 16.9            | 19.7            | 17.3            | 10.4          | 16.1             |
|                                                                 | median | 13           | 12              | 15              | 15              | 9             | 12               |
| central                                                         | mean   | 10.8         | 10.8            | 12.0            | 13.5            | 10.2          | 11.5             |
| heating<br>boilers                                              | median | 7            | 8               | 10              | 10              | 9             | 9                |
| heating                                                         | mean   | 17.0         | 18.0            | 19.2            | 22.3            | 12.3          | 17.9             |
| distribution                                                    | median | 15           | 20              | 20              | 25              | 11            | 18               |
| windows                                                         | mean   | 21.5         | 13.0            | 12.1            | 11.7            | 10.0          | 13.8             |
|                                                                 | median | 10           | 10              | 10              | 10              | 9             | 10               |
| roof covering                                                   | mean   | 46.7         | 42.9            | 38.5            | 27.9            | 13.4          | 33.7             |
|                                                                 | median | 25           | 30              | 47              | 31              | 13            | 25               |
| Base: all dwellings                                             |        |              |                 |                 |                 |               |                  |

Although the average age of windows is higher in the older stock, this arises because a significant minority of pre-1919 homes still have the original windows which have been retained, and in many cases well maintained, for aesthetic reasons or because of planning restrictions. Some 30% of homes built before 1919 have windows that are five years old or less; very similar to the proportion in newer dwellings, Figure 3.21.



Kitchens and bathrooms were, on average, older in purpose built flats, especially high rise flats where the average age of a kitchen was 18 years and the average age of a bathroom was 23 years, Table 3.9. Converted flats had the oldest windows and roof coverings.

| Table 3.9: Average age of element (years) by dwelling type, 2007 |          |                            |                                       |                            |                   |               |                        |                                               |                                                |                       |
|------------------------------------------------------------------|----------|----------------------------|---------------------------------------|----------------------------|-------------------|---------------|------------------------|-----------------------------------------------|------------------------------------------------|-----------------------|
|                                                                  |          | small<br>terraced<br>house | medium/<br>large<br>terraced<br>house | semi-<br>detached<br>house | detached<br>house | bunga-<br>low | con-<br>verted<br>flat | pur-<br>pose<br>built<br>flat,<br>low<br>rise | pur-<br>pose<br>built<br>flat,<br>high<br>rise | all<br>dwel-<br>lings |
| kitchens                                                         | mean     | 12.5                       | 12.3                                  | 12.1                       | 11.6              | 13.9          | 12.8                   | 14.7                                          | 17.6                                           | 12.7                  |
|                                                                  | median   | 9                          | 9                                     | 9                          | 9                 | 11            | 10                     | 12                                            | 15                                             | 10                    |
| bath-                                                            | mean     | 16.7                       | 16.3                                  | 15.4                       | 13.9              | 16.8          | 16.6                   | 18.5                                          | 23.3                                           | 16.1                  |
| rooms                                                            | median   | 14                         | 12                                    | 11                         | 10                | 13            | 15                     | 17                                            | 21                                             | 12                    |
| central                                                          | mean     | 10.8                       | 11.2                                  | 11.3                       | 11.6              | 12.2          | 10.1                   | 12.0                                          | 18.2                                           | 11.5                  |
| heating<br>boilers                                               | median   | 8                          | 8                                     | 9                          | 9                 | 9             | 5                      | 10                                            | 12                                             | 9                     |
| heating                                                          | mean     | 15.3                       | 17.3                                  | 18.3                       | 18.4              | 19.5          | 16.3                   | 17.3                                          | 24.9                                           | 17.9                  |
| distri-<br>bution                                                | median   | 15                         | 16                                    | 20                         | 18                | 20            | 15                     | 16                                            | 20                                             | 18                    |
| windows                                                          | mean     | 12.7                       | 13.2                                  | 11.9                       | 12.7              | 11.5          | 29.9                   | 17.1                                          | 25.2                                           | 13.8                  |
|                                                                  | median   | 10                         | 10                                    | 10                         | 10                | 10            | 14                     | 10                                            | 15                                             | 10                    |
| roof .                                                           | mean     | 38.9                       | 36.8                                  | 36.8                       | 28.3              | 30.3          | 37.7                   | 28.7                                          | 26.6                                           | 33.7                  |
| covering                                                         | median   | 25                         | 27                                    | 30                         | 20                | 29            | 20                     | 25                                            | 20                                             | 25                    |
| Base: all du                                                     | wellings |                            |                                       |                            |                   |               |                        |                                               |                                                |                       |

In both the private and social sectors, most components in flats tended to be older than those in houses; apart from roof covering. In the social sector, the largest differences are for kitchens, bathrooms and heating, Table 3.10. For example, 27% of social sector houses had kitchens that were at least 20 years old but this rises to 38% for social sector flats. This suggests that improvement programmes, including Decent Homes, have been targeted more at houses than flats, and may reflect a tendency for social landlords to carry out the most straightforward work (to traditionally constructed houses) first, leaving more problematic properties such as high rise flats for later (after more thorough structural and other evaluations had been carried out).<sup>4</sup>

<sup>&</sup>lt;sup>4</sup> See Assessment of Implementing Decent Homes in the Social Sector (CLG, 2007) at http://www.communities.gov.uk/publications/housing/assessmentimplementingdecent)

| Table 3.10: Average age of element (years) by dwelling type and sector, 2007 |                            |                           |                           |                          |                  |  |  |
|------------------------------------------------------------------------------|----------------------------|---------------------------|---------------------------|--------------------------|------------------|--|--|
|                                                                              | private<br>sector<br>house | private<br>sector<br>flat | social<br>sector<br>house | social<br>sector<br>flat | all<br>dwellings |  |  |
| kitchens mean                                                                | 12.2                       | 13.3                      | 13.3                      | 16.3                     | 12.7             |  |  |
| median                                                                       | 9                          | 10                        | 10                        | 15                       | 10               |  |  |
| bathrooms mean                                                               | 15.1                       | 16.4                      | 19.0                      | 21.6                     | 16.1             |  |  |
| median                                                                       | 11                         | 14                        | 17                        | 21                       | 12               |  |  |
| central heating boilers mean                                                 | 11.5                       | 11.3                      | 10.9                      | 13.0                     | 11.5             |  |  |
| median                                                                       | 9                          | 7                         | 8                         | 10                       | 9                |  |  |
| heating distribution mean                                                    | 18.3                       | 17.4                      | 15.2                      | 18.0                     | 17.9             |  |  |
| median                                                                       | 20                         | 15                        | 15                        | 18                       | 18               |  |  |
| windows mean                                                                 | 12.6                       | 22.8                      | 11.1                      | 16.9                     | 13.8             |  |  |
| median                                                                       | 10                         | 10                        | 10                        | 10                       | 10               |  |  |
| roof covering mean                                                           | 34.4                       | 31.0                      | 34.5                      | 29.4                     | 33.7             |  |  |
| median                                                                       | 25                         | 21                        | 30                        | 27                       | 25               |  |  |
| Base: all dwellings                                                          |                            |                           |                           |                          |                  |  |  |

In the private sector, the largest differences between flats and houses were for windows. Only about 3% of private sector houses had windows that were 40 years old or more compared with 14% of private sector flats, Figure 3.22.



Generally, there was less variation in average age of components by the level of deprivation, although some general trends were discernible, Table 3.11. The age of kitchens, bathrooms and roof covering increases with increasing deprivation. There is no discernible trend in relation to windows and boilers although the average age of central heating distribution appears to increase as deprivation reduces.

| Table 3.11: Average age of element (years) by local area level of deprivation, 2007 |         |                         |      |      |      |      |      |      |      |      |                          |                       |
|-------------------------------------------------------------------------------------|---------|-------------------------|------|------|------|------|------|------|------|------|--------------------------|-----------------------|
|                                                                                     |         | most<br>deprived<br>10% | 2nd  | 3rd  | 4th  | 5th  | 6th  | 7th  | 8th  | 9th  | least<br>deprived<br>10% | all<br>dwel-<br>lings |
| kitchens                                                                            | mean    | 14.0                    | 13.0 | 12.6 | 12.6 | 13.0 | 12.3 | 12.5 | 13.0 | 11.5 | 12.3                     | 12.7                  |
|                                                                                     | median  | 11                      | 10   | 9    | 9    | 10   | 9    | 10   | 10   | 8    | 10                       | 10                    |
| bath-                                                                               | mean    | 19.1                    | 17.4 | 16.1 | 15.7 | 16.7 | 16.0 | 15.0 | 15.9 | 14.9 | 14.2                     | 16.1                  |
| rooms                                                                               | median  | 18                      | 15   | 12   | 12   | 13   | 11   | 11   | 12   | 10   | 10                       | 12                    |
| central                                                                             | mean    | 11.1                    | 10.6 | 10.4 | 11.5 | 12.5 | 11.9 | 11.6 | 12.2 | 11.7 | 11.4                     | 11.5                  |
| heating<br>boilers                                                                  | median  | 8                       | 7    | 7    | 8    | 10   | 10   | 9    | 10   | 10   | 9                        | 9                     |
| heating                                                                             | mean    | 15.5                    | 16.2 | 16.8 | 17.2 | 18.7 | 18.4 | 18.4 | 19.0 | 19.2 | 18.9                     | 17.9                  |
| distri-<br>bution                                                                   | median  | 15                      | 15   | 16   | 15   | 20   | 20   | 19   | 20   | 20   | 19                       | 18                    |
| windows                                                                             | mean    | 13.2                    | 13.7 | 14.3 | 14.4 | 13.4 | 15.2 | 13.6 | 14.5 | 13.1 | 12.3                     | 13.8                  |
|                                                                                     | median  | 10                      | 10   | 10   | 10   | 10   | 10   | 10   | 10   | 10   | 10                       | 10                    |
| roof                                                                                | mean    | 36.1                    | 34.4 | 35.8 | 34.9 | 34.3 | 35.4 | 33.6 | 33.3 | 30.2 | 29.4                     | 33.7                  |
| covering                                                                            | median  | 28                      | 28   | 28   | 27   | 25   | 25   | 25   | 24   | 22   | 22                       | 25                    |
| Base: all dw                                                                        | ellings |                         |      |      |      |      |      |      |      |      |                          |                       |

Note: the local area level of deprivation is based on Census lower level Super Output Areas ranked by the 2007 Index of Multiple Deprivation and grouped into ten equal numbers of areas.

Dwellings in all areas were almost equally likely to have a roof covering up to 5 years old (11-14%), but the proportion where the roof covering was at least 50 years old reduces from 25% of homes in the most deprived areas to 18% in the least deprived, Figure 3.23.



### Disrepair caused by vandalism

Where dwellings have common areas and/or shared facilities, the surveyor assesses how far any problems of disrepair result from vandalism on a simple three point scale. The majority (86%) of the 3.9 million homes with common areas and/or shared facilities had no problems with vandalism at the time of survey in 2007. However the costs of repairs to common areas and shared facilities increased sharply with the degree of vandalism from an average of around £72 for those with no problems to £624 for those with major vandalism problems, Table 3.12.

| Table 3.12: Incidence of vandalism and average basic required expenditureon common areas and shared facilities, 2007          |                                                                                                                                      |      |      |  |  |  |  |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------|------|--|--|--|--|
|                                                                                                                               | % of dwellings with<br>common parts or<br>number (000s)average cost of repairs p<br>dwelling to common areas ar<br>shared facilities |      |      |  |  |  |  |
| no vandalism                                                                                                                  | 3,322                                                                                                                                | 86%  | £72  |  |  |  |  |
| minor vandalism                                                                                                               | 494                                                                                                                                  | 13%  | £224 |  |  |  |  |
| major vandalism                                                                                                               | 60                                                                                                                                   | 2%   | £624 |  |  |  |  |
| total                                                                                                                         | 3,876                                                                                                                                | 100% | £104 |  |  |  |  |
| Base: all dwellings with common areas and/or shared facilities<br>Note: all dwellings using standardised costs at 2007 prices |                                                                                                                                      |      |      |  |  |  |  |

By looking at the average costs for cases with no vandalism (£72 per dwelling) and multiply this by the total number of dwellings with common parts or shared facilities, it is possible to estimate the cost of repairs if there were no vandalism (approximately £280 million). By comparing this to the total cost of repairs to common areas and shared facilities with current levels of vandalism, this suggests that around 31% of these repair costs related to vandalism. The basic required expenditure here represent only a snapshot of what was needed on one particular day and costs over a year will considerably exceed this. This is because, over one year, a much larger number of common areas and shared facilities will suffer some vandalism and, in many cases, the vandalism will occur more than once. The estimate of 31% of all costs attributable to vandalism was a therefore a significant underestimate of the real costs over a year.

Looking specifically at the social sector, the average costs of repairs to common areas and shared facilities were a little lower than the average for all tenures but the incidence of vandalism in these areas was higher with more than one in five having some problems evident (at the time of survey), Table 3.13. Using the same calculation method as above suggests that at least 38% of the total cost of works to common areas and shared facilities in the social sector can be attributed to vandalism.

| Table 3.13: Social sector stock – incidence of vandalism and average basic required expenditure on common areas and shared facilities, 2007 |               |                                                             |                                                                                  |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------------------------------------------------|----------------------------------------------------------------------------------|--|--|--|
|                                                                                                                                             | number (000s) | % of dwellings with<br>common parts or shared<br>facilities | average cost per dwelling of<br>repairs to common areas<br>and shared facilities |  |  |  |
| no vandalism                                                                                                                                | 1,267         | 78%                                                         | £64                                                                              |  |  |  |
| minor vandalism                                                                                                                             | 315           | 19%                                                         | £205                                                                             |  |  |  |
| major vandalism                                                                                                                             | 47            | 3%                                                          | £519                                                                             |  |  |  |
| total                                                                                                                                       | 1,629         | 100%                                                        | £104                                                                             |  |  |  |
| Base: all social sector dwellings with common parts and/or shared facilities<br>Note: all dwellings using standardised costs at 2007 prices |               |                                                             |                                                                                  |  |  |  |

## **Investment in the stock**

This section looks at the types of work carried out to the stock, how far repair and improvement activity was targeted at those homes most in need of work, and who is most (and least) likely to have carried out such necessary work. The analysis of work carried out focuses on owner occupiers.<sup>5</sup>

Almost two thirds of owner occupiers (64%) had done some work to their home during the previous twelve months that would significantly impact on its condition and/or energy performance, Table 3.14. The most common type of work related to energy efficiency (40%) and covered items such as wall and loft insulation, servicing/replacing boilers or improving heating. At least some of this improvement work will have been

<sup>&</sup>lt;sup>5</sup> Although the survey asks all occupants about work done to their home, previous research has shown that tenants often under-report the amount of work carried out. This analysis therefore looks at owner occupiers only.

carried out with the assistance of government schemes like Warm Front. One in six (17%) had replaced the kitchen, bathroom or both and one in seven (14%) had replaced one or more windows. Around a third (32%) had carried out at least one major repair to the building fabric or services.

| Table 3.14: Number and percentage of owner occupiers carrying out |   |
|-------------------------------------------------------------------|---|
| different types of work during the previous twelve months, 2007   | / |

| type of work done                   | number of dwellings (000s) | percentage (%) |
|-------------------------------------|----------------------------|----------------|
| energy related                      | 6,005                      | 39.5           |
| repairs                             | 4,903                      | 32.2           |
| new amenities                       | 2,533                      | 16.6           |
| window/door improvements            | 2,060                      | 13.5           |
| security or lobby work              | 1,308                      | 8.6            |
| extension/room conversion           | 313                        | 2.1            |
| stairs redesign                     | 6                          | 0.1            |
| any work recorded?                  | 9,735                      | 64.0           |
| total                               | 15,221                     | 100.0          |
| Base: all owner occupied households |                            |                |

Across all tenures the indications are that these repairs and improvements tend to be targeted towards homes in the worst condition. Where work had been carried out during 2004 to 2007 on kitchens and bathrooms etc it is evident that the prior (2004) condition of these components was substantially worse than in homes where no such work was carried out, Figure 3.24.<sup>6</sup> Typically the average repair costs of those where some work was carried out had previously been nearly double those where no work had taken place.

<sup>&</sup>lt;sup>6</sup> The analysis of how well work is targeted to where it is most needed is based on a sub-sample of homes surveyed for the 2004 EHCS and revisited for the 2007 EHCS. This sub-sample is separately weighted and grossed to the 2007 housing stock that was also present in 2004 (i.e. it excludes housing that was built, demolished or subject to change of use during the period). See the EHCS Technical Report for details of this sub-sample.


Focussing on those homes in a relative poor state of repair in 2004 (the 30% of homes with the highest standardised basic repair costs), two distinct groups of properties can be identified:

- homes where work had been subsequently carried out and had significantly improved by 2007 (around 68%)
- homes that had remained in poor condition or deteriorated further by 2007 (32%).

Owner occupied homes that had seen 'significant improvement' were more likely to have higher market values, and be occupied by owners with higher incomes, compared with those homes showing no improvement, Table 3.15. Whether poor condition homes were improved was also related to specific types of household, their length of residence and the age and location of the property.

#### Table 3.15: Owner occupied households in poor condition homes in 2004 – groups most and least likely to have significantly improved their home by 2007

| Most likely to have improved                                 | Least likely to have improved                         |
|--------------------------------------------------------------|-------------------------------------------------------|
| In top 60% of income distribution (75%)                      | In lowest 40% of income distribution (50%)            |
| Couples with dependent children (72%)                        | Vulnerable households (61%)                           |
| Homes built after 1945 (75%)                                 | Homes built 1919-1944 (59%)                           |
| Homes in rural areas (75%)                                   | Homes in urban and city centres (60%)                 |
| Households living in their home for less than 10 years (73%) | Households living in their home for 10-19 years (61%) |
| Households in homes valued at £225,000 or more (71%)         | Households in homes valued at £130,000 or less (59%)  |
| Base: all owner occupied households in poor condi            | tion homes in 2004                                    |

| AnnexTa                        | able 34 | A.1: Rec<br>dwo | quired<br>elling: | l expen<br>s, 2007 | diture         | and sta      | andaro      | dised co   | osts fo | or urger    | nt, bas      | ic and o       | comp            | prehens                | sive re                     | pairs -               | -                   |                |
|--------------------------------|---------|-----------------|-------------------|--------------------|----------------|--------------|-------------|------------|---------|-------------|--------------|----------------|-----------------|------------------------|-----------------------------|-----------------------|---------------------|----------------|
|                                |         | average         | require           | ed expend          | liture (f      | :)           |             | average    | standar | dised cos   | ts (£/m      | <sup>2</sup> ) | perce<br>of sta | entage of<br>andardise | group w<br>ed comp<br>costs | vithin ea<br>rehensiv | ch band<br>e repair | number         |
|                                | ur      | gent<br>        | b                 | asic<br>           | compr          | ehensive<br> | ur          | gent<br>   | b       | asic<br>    | compr        | ehensive<br>   | zero            | up to                  | <b>£11-</b>                 | £51-<br>£100          | over                | of             |
|                                | mean    | median          | mean              | median             | mean           | median       | mean        | median     | mean    | median      | mean         | median         | cost            | £10 m <sup>2</sup>     | £50 m²                      | m²                    | £100 m <sup>2</sup> | (000s)         |
| tenure                         |         |                 |                   |                    |                |              |             |            |         |             |              |                |                 |                        |                             |                       |                     |                |
| owner<br>occupied              | 1,056   | 0               | 1,784             | 403                | 4,173          | 1,516        | 8.8         | 0.0        | 14.5    | 2.8         | 38.0         | 13.2           | 24.4            | 21.0                   | 29.8                        | 13.1                  | 11.6                | 15,560         |
| private<br>rented              | 2,090   | 522             | 3,014             | 1,160              | 5,416          | 2,737        | 22.5        | 5.1        | 31.8    | 11.2        | 61.7         | 29.6           | 14.6            | 18.5                   | 28.4                        | 18.4                  | 20.1                | 2,738          |
| local<br>authority             | 1,044   | 327             | 1,358             | 582                | 2,780          | 1,333        | 16.0        | 4.0        | 20.8    | 8.1         | 46.8         | 21.0           | 13.4            | 22.2                   | 33.2                        | 16.5                  | 14.7                | 1,987          |
| RSL                            | 640     | 78              | 877               | 214                | 1,832          | 598          | 9.2         | 1.0        | 12.5    | 2.8         | 30.6         | 8.9            | 26.0            | 26.4                   | 29.3                        | 9.1                   | 9.2                 | 1,904          |
| all private                    | 1,211   | 60              | 1,968             | 502                | 4,359          | 1,653        | 10.9        | 0.4        | 17.1    | 3.7         | 41.6         | 14.7           | 23.0            | 20.7                   | 29.6                        | 13.9                  | 12.9                | 18,298         |
| all social                     | 846     | 182             | 1,123             | 401                | 2,316          | 927          | 12.7        | 2.3        | 16.7    | 5.2         | 38.9         | 14.1           | 19.6            | 24.3                   | 31.3                        | 12.9                  | 12.0                | 3,891          |
| type of<br>vacancy<br>occupied | 993     | 79<br>777       | 1,657             | 445<br>1 304       | 3,827          | 1,429        | 9.2<br>54 8 | 0.7        | 14.9    | 3.7<br>16.8 | 38.6<br>96.4 | 14.1           | 22.7            | 21.6                   | 30.2                        | 13.7<br>14 3          | 11.9<br>31 9        | 21,242<br>947  |
| dwelling                       | 4,000   | ///             | 5,400             | 1,304              | 7,000          | 0,001        | 04.0        | 0.0        | 04.1    | 10.0        | 00.4         | 40.7           | 10.0            | 10.0                   | 20.0                        | 14.0                  | 01.0                | 347            |
| age                            | 0.000   | 005             | 0.004             | 1 770              | 0.000          | 0 774        | 01.0        | <b>F</b> 0 | 047     | 10.0        | 00.0         | 070            |                 | 15.0                   | 00.0                        | 107                   | 00.7                | 4 700          |
| pre-1919                       | 2,383   | 035             | 3,884             | 1,//8              | 6,886<br>5 /11 | 3,//         | 2 I.0       | 5.8<br>1.0 | 34.7    | 16.3        | 66.3<br>54.2 | 37.9           | 9.5             | 15.0                   | 33.0                        | 19.7                  | 170                 | 4,/00          |
| 1975-67                        | 918     | 150             | 2,341             | 608                | 2,411          | 1 7/13       | 95          | 1.0        | 21.5    | 5.4         | /2 0         | 18.6           | 12.1            | 21.1                   | 30.7                        | 10.7                  | 17.9                | 3,004<br>4 345 |
| 1965-80                        | 705     | 23              | 986               | 207                | 2,780          | 951          | 7.9         | 0.2        | 10.4    | 1.6         | 30.9         | 10.0           | 22.9            | 27.2                   | 30.2                        | 11.9                  | 7.8                 | 4.806          |
| 1981-90                        | 426     | 0               | 570               | 17                 | 1,731          | 260          | 4.6         | 0.0        | 5.8     | 0.0         | 18.9         | 2.5            | 36.8            | 27.4                   | 23.3                        | 8.5                   | 4.1                 | 1,878          |
| post 1990                      | 170     | 0               | 248               | 0                  | 704            | 0            | 1.7         | 0.0        | 2.3     | 0.0         | 7.9          | 0.0            | 59.8            | 23.4                   | 12.4                        | 3.2                   | 1.2                 | 2,531          |
| dwelling<br>type               |         |                 |                   |                    |                |              |             |            |         |             |              |                |                 |                        |                             |                       |                     |                |
| end terrace                    | 1,223   | 155             | 1,959             | 598                | 4,049          | 1,693        | 12.4        | 1.4        | 20.0    | 6.1         | 45.8         | 19.3           | 19.3            | 20.1                   | 30.5                        | 15.2                  | 14.8                | 2,082          |
| _ mid terrace                  | 1,194   | 233             | 1,863             | 748                | 3,813          | 1,971        | 13.9        | 2.5        | 21.8    | 8.1         | 47.8         | 22.8           | 15.9            | 17.9                   | 34.4                        | 16.9                  | 14.9                | 4,158          |
| small<br>terrace               | 904     | 131             | 1,397             | 482                | 3,011          | 1,515        | 13.9        | 1.7        | 21.4    | 6.7         | 49.3         | 21.8           | 19.4            | 16.4                   | 31.3                        | 17.3                  | 15.6                | 2,185          |

|                              |       | dwe     | elling  | s, 2007   | (Cont     | inued)   |      |         |         |           |          |                |                 |                             |                               |                             |                             |                     |
|------------------------------|-------|---------|---------|-----------|-----------|----------|------|---------|---------|-----------|----------|----------------|-----------------|-----------------------------|-------------------------------|-----------------------------|-----------------------------|---------------------|
|                              |       | average | require | ed expend | liture (£ | :)       |      | average | standar | dised cos | sts (£/m | <sup>2</sup> ) | perce<br>of sta | entage of<br>andardis       | f group w<br>ed comp<br>costs | vithin ea<br>rehensiv       | ch band<br>ve repair        | number              |
|                              | urç   | gent    | b       | asic      | compr     | ehensive | ur   | gent    | b       | asic      | compre   | ehensive       |                 |                             | 044                           | 054                         |                             | of                  |
|                              | mean  | median  | mean    | median    | mean      | median   | mean | median  | mean    | median    | mean     | median         | zero<br>cost    | up to<br>£10 m <sup>2</sup> | £11-<br>£50 m <sup>2</sup>    | £51-<br>£100 m <sup>2</sup> | over<br>£100 m <sup>2</sup> | dwellings<br>(000s) |
| medium/<br>large             | 1,366 | 273     | 2,164   | 835       | 4,367     | 2,106    | 13.2 | 2.3     | 21.1    | 7.7       | 46.0     | 21.2           | 15.8            | 19.9                        | 34.1                          | 15.8                        | 14.4                        | 4,056               |
| all terrace                  | 1 204 | 205     | 1 895   | 691       | 3 892     | 1 884    | 13.4 | 2.0     | 212     | 72        | 472      | 215            | 170             | 18 7                        | 33.1                          | 16.3                        | 14.9                        | 6.241               |
| semi<br>detached             | 1,113 | 114     | 1,854   | 645       | 4,657     | 2,082    | 10.1 | 0.8     | 16.3    | 5.0       | 45.7     | 19.7           | 17.9            | 19.1                        | 33.2                          | 15.1                        | 14.8                        | 6,103               |
| detached                     | 1,180 | 0       | 2,107   | 154       | 4,749     | 950      | 5.3  | 0.0     | 9.1     | 0.2       | 25.2     | 4.4            | 36.1            | 23.3                        | 24.1                          | 9.7                         | 6.7                         | 3,973               |
| bungalow                     | 918   | 0       | 1,382   | 126       | 3,253     | 814      | 10.6 | 0.0     | 15.3    | 1.1       | 41.2     | 8.1            | 31.5            | 20.6                        | 25.0                          | 10.1                        | 12.9                        | 2,102               |
| converted<br>flat            | 2,570 | 684     | 3,620   | 1,754     | 5,633     | 3,419    | 27.9 | 7.7     | 39.9    | 18.7      | 69.8     | 38.7           | 9.2             | 15.8                        | 30.5                          | 20.7                        | 23.8                        | 757                 |
| pb flat, low<br>rise         | 832   | 148     | 1,055   | 281       | 2,022     | 638      | 12.0 | 1.8     | 14.9    | 3.3       | 32.2     | 8.8            | 21.8            | 30.2                        | 27.8                          | 11.4                        | 8.8                         | 2,696               |
| pb flat, high<br>rise        | 1,064 | 194     | 1,204   | 365       | 2,016     | 707      | 20.0 | 2.8     | 22.2    | 4.5       | 38.8     | 10.8           | 18.3            | 30.5                        | 26.0                          | 12.2                        | 13.1                        | 318                 |
| all houses                   | 1,136 | 34      | 1,869   | 479       | 4,257     | 1,621    | 10.2 | 0.3     | 16.3    | 3.7       | 41.3     | 15.1           | 23.1            | 20.0                        | 30.3                          | 13.8                        | 12.8                        | 18,418              |
| all flats                    | 1,201 | 222     | 1,583   | 441       | 2,747     | 923      | 15.9 | 2.8     | 20.5    | 5.3       | 40.3     | 12.2           | 19.0            | 27.3                        | 28.2                          | 13.3                        | 12.2                        | 3,771               |
| less than 50m <sup>2</sup>   | 840   | 100     | 1,106   | 258       | 2,267     | 705      | 16.9 | 1.6     | 21.9    | 4.0       | 50.0     | 15.1           | 23.3            | 21.6                        | 25.1                          | 13.4                        | 16.6                        | 2,378               |
| 50 to 69m <sup>2</sup>       | 1,017 | 135     | 1,463   | 433       | 3,039     | 1,196    | 13.6 | 1.6     | 19.6    | 5.2       | 44.4     | 16.4           | 20.7            | 20.7                        | 30.9                          | 14.2                        | 13.5                        | 5,208               |
| 70 to 89m <sup>2</sup>       | 1,113 | 162     | 1,761   | 623       | 3,994     | 1,817    | 11.6 | 1.3     | 18.2    | 5.6       | 45.2     | 18.9           | 17.9            | 20.3                        | 32.5                          | 14.9                        | 14.4                        | 6,440               |
| 90 to<br>109m <sup>2</sup>   | 1,079 | 29      | 1,817   | 453       | 4,185     | 1,805    | 8.6  | 0.2     | 14.6    | 2.9       | 37.0     | 15.6           | 22.8            | 20.2                        | 32.2                          | 13.2                        | 11.6                        | 3,237               |
| 110m <sup>2</sup> or<br>more | 1,522 | 0       | 2,621   | 463       | 5,742     | 1,726    | 7.1  | 0.0     | 12.0    | 1.5       | 30.7     | 7.8            | 29.3            | 23.8                        | 26.3                          | 12.0                        | 8.6                         | 4,926               |
| all<br>dwellings             | 1,147 | 92      | 1,820   | 470       | 4,001     | 1,470    | 11.2 | 0.8     | 17.0    | 4.0       | 41.1     | 14.6           | 22.4            | 21.3                        | 29.9                          | 13.7                        | 12.7                        | 22,189              |

Annex Table 3A.1: Required expenditure and standardised costs for urgent, basic and comprehensive repairs –

Annual Report

Base: all dwellings

Annual Report

Note: all costs (standardised and require expenditure) as at 2007 prices

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| Annex la                         | ble 3A | A.2: Rec | luired  | expen     | diture    | and sta  | ndard | dised co | osts fo | or urger  | nt, bas | ic and o | comp       | brehen                 | sive re                              | pairs -                    | - areas         | , 2007                    |
|----------------------------------|--------|----------|---------|-----------|-----------|----------|-------|----------|---------|-----------|---------|----------|------------|------------------------|--------------------------------------|----------------------------|-----------------|---------------------------|
|                                  |        | average  | require | ed expend | liture (£ | :)       |       | average  | standar | dised cos | ts (£/m | 2)       | pe<br>band | rcentage<br>I of stand | e of group<br>dardised<br>repair cos | o within<br>comprel<br>sts | each<br>hensive |                           |
|                                  | urę    | gent     | b       | asic      | compr     | ehensive | ur    | gent     | b       | asic      | compr   | ehensive | zero       | up to                  | £11-                                 | £51-<br>£100               | over<br>£100    | number<br>of<br>dwellings |
|                                  | mean   | median   | mean    | median    | mean      | median   | mean  | median   | mean    | median    | mean    | median   | COST       | £10 m²                 | £50 m²                               | m²                         | m²              | (000s)                    |
| area type:                       |        |          |         |           |           |          |       |          |         |           |         |          |            |                        |                                      |                            |                 |                           |
| city centre                      | 1,700  | 207      | 2,469   | 678       | 4,572     | 1,633    | 20.1  | 2.1      | 28.2    | 6.6       | 55.2    | 21.4     | 19.6       | 21.9                   | 24.3                                 | 15.4                       | 18.9            | 645                       |
| other urban                      | 1,414  | 263      | 2,111   | /31       | 4,364     | 2,091    | 16.2  | 2.8      | 23.7    | 7.9       | 52.4    | 23.7     | 15.0       | 19.6                   | 31.0                                 | 16.7                       | 17.7            | 4,160                     |
| suburban                         | 889    | 28       | 1,468   | 367       | 3,507     | 1,266    | 8.9   | 0.2      | 13.9    | 3.1       | 36.7    | 12.8     | 24.2       | 21.6                   | 30.2                                 | 13.1                       | 10.9            | 13,126                    |
| rural<br>residential             | 983    | 0        | 1,603   | 340       | 3,709     | 1,206    | 8.0   | 0.0      | 12.4    | 2.1       | 32.4    | 9.1      | 27.6       | 23.6                   | 28.1                                 | 11.2                       | 9.6             | 2,652                     |
| village<br>centre                | 2,036  | 207      | 3,147   | 874       | 6,073     | 2,265    | 18.7  | 1.5      | 28.0    | 6.2       | 56.8    | 18.9     | 19.9       | 19.6                   | 30.2                                 | 13.2                       | 17.1            | 876                       |
| rural                            | 3,315  | 424      | 5,123   | 1,571     | 8,876     | 3,587    | 19.1  | 1.9      | 29.2    | 7.7       | 56.2    | 23.2     | 18.7       | 18.0                   | 30.7                                 | 15.0                       | 17.6            | 729                       |
| all city and<br>urban<br>centres | 1,453  | 259      | 2,158   | 727       | 4,389     | 2,007    | 16.7  | 2.7      | 24.3    | 7.7       | 52.8    | 23.4     | 15.6       | 19.9                   | 30.1                                 | 16.5                       | 17.9            | 4,804                     |
| suburban<br>residential          | 888    | 28       | 1,468   | 367       | 3,508     | 1,267    | 8.9   | 0.2      | 13.9    | 3.1       | 36.7    | 12.8     | 24.2       | 21.6                   | 30.2                                 | 13.1                       | 10.9            | 13,128                    |
| all rural                        | 1,599  | 27       | 2,523   | 555       | 5,080     | 1,677    | 12.1  | 0.2      | 18.5    | 3.5       | 41.5    | 12.6     | 24.5       | 21.8                   | 29.0                                 | 12.2                       | 12.5            | 4,257                     |
| deprived<br>local areas          |        |          |         |           |           |          |       |          |         |           |         |          |            |                        |                                      |                            |                 |                           |
| 10% most<br>deprived             | 1,367  | 350      | 1,934   | 674       | 3,807     | 1,747    | 18.0  | 4.2      | 24.6    | 8.0       | 52.4    | 23.2     | 14.5       | 20.3                   | 32.1                                 | 15.9                       | 17.3            | 2,082                     |
| 2nd                              | 1,184  | 227      | 1,728   | 660       | 3,542     | 1,590    | 13.8  | 2.7      | 19.9    | 7.5       | 45.3    | 20.7     | 17.3       | 20.8                   | 31.7                                 | 15.6                       | 14.5            | 2,231                     |
| 3rd                              | 1,208  | 172      | 1,857   | 639       | 3,943     | 1,755    | 13.4  | 1.6      | 20.1    | 6.4       | 47.1    | 19.8     | 19.5       | 17.7                   | 32.3                                 | 14.2                       | 16.3            | 2,264                     |
| 4th                              | 1,233  | 123      | 1,938   | 475       | 4,116     | 1,447    | 12.2  | 1.1      | 18.7    | 4.6       | 44.2    | 15.8     | 20.6       | 22.6                   | 28.8                                 | 14.9                       | 13.0            | 2,209                     |
| 5th                              | 1,198  | 158      | 1,946   | 620       | 4,531     | 1,863    | 11.5  | 1.3      | 18.2    | 5.8       | 47.1    | 18.4     | 20.0       | 19.0                   | 29.9                                 | 16.3                       | 14.7            | 2,225                     |
| 6th                              | 1,105  | 71       | 1,871   | 448       | 4,059     | 1,623    | 10.2  | 0.6      | 16.3    | 3.4       | 39.7    | 14.7     | 22.3       | 20.8                   | 31.6                                 | 13.2                       | 12.1            | 2,241                     |

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| Annex Ta                    | ble 3A                | A.2: Req<br><i>(Co</i> | uired<br>ntinue       | expend<br>ed)     | diture                | and sta               | ndard               | lised co          | osts fo             | r urgen           | it, basi            | ic and o            | comp                | brehen               | sive re                            | pairs -                   | – areas,            | , 2007          |
|-----------------------------|-----------------------|------------------------|-----------------------|-------------------|-----------------------|-----------------------|---------------------|-------------------|---------------------|-------------------|---------------------|---------------------|---------------------|----------------------|------------------------------------|---------------------------|---------------------|-----------------|
|                             |                       | average                | require               | ed expend         | liture (£             | )                     |                     | average           | standard            | lised cos         | ts (£/m2            | 2)                  | pe<br>band          | rcentage<br>of stand | of group<br>lardised<br>repair cos | o within<br>compre<br>sts | each<br>hensive     | number          |
|                             | ur                    | gent                   | ba                    | asic              | compre                | ehensive              | urç                 | gent              | ba                  | isic              | compre              | ehensive            | zero                | up to                | £11-                               | £51-<br>£100              | over                | of<br>dwellings |
|                             | mean                  | median                 | mean                  | median            | mean                  | median                | mean                | median            | mean                | median            | mean                | median              | cost                | £10 m <sup>2</sup>   | <b>£50</b> m <sup>2</sup>          | m <sup>2</sup>            | £100 m <sup>2</sup> | (000s)          |
| 7th                         | 1,161                 | 9                      | 1,903                 | 418               | 4,159                 | 1,469                 | 9.4                 | 0.1               | 15.0                | 3.1               | 36.3                | 12.6                | 23.7                | 22.0                 | 31.2                               | 12.8                      | 10.2                | 2,257           |
| 8th                         | 1,311                 | 0                      | 2,062                 | 365               | 4,342                 | 1,127                 | 10.1                | 0.0               | 15.9                | 2.4               | 37.5                | 10.5                | 25.9                | 23.6                 | 27.3                               | 12.0                      | 11.3                | 2,354           |
| 9th                         | 918                   | 0                      | 1,535                 | 214               | 3,889                 | 1,180                 | 7.5                 | 0.0               | 11.8                | 1.3               | 33.4                | 8.9                 | 28.1                | 23.6                 | 26.4                               | 12.0                      | 9.9                 | 2,293           |
| 10% least<br>deprived       | 763                   | 0                      | 1,391                 | 154               | 3,552                 | 995                   | 5.9                 | 0.0               | 9.7                 | 0.6               | 28.1                | 7.3                 | 31.7                | 22.4                 | 27.9                               | 9.9                       | 8.1                 | 2,035           |
| deprived<br>districts       |                       |                        |                       |                   |                       |                       |                     |                   |                     |                   |                     |                     |                     |                      |                                    |                           |                     |                 |
| deprived                    | 1,135                 | 152                    | 1,795                 | 579               | 3,894                 | 1,648                 | 12.6                | 1.4               | 19.0                | 5.7               | 44.7                | 18.7                | 19.3                | 20.7                 | 30.2                               | 15.6                      | 14.2                | 9,313           |
| other<br>districts          | 1,156                 | 28                     | 1,839                 | 399               | 4,078                 | 1,339                 | 10.2                | 0.2               | 15.6                | 3.0               | 38.5                | 12.4                | 24.6                | 21.7                 | 29.7                               | 12.3                      | 11.7                | 12,876          |
| regional                    |                       |                        |                       |                   |                       |                       |                     |                   |                     |                   |                     |                     |                     |                      |                                    |                           |                     |                 |
| northern                    |                       |                        |                       |                   |                       |                       |                     |                   |                     |                   |                     |                     |                     |                      |                                    |                           |                     |                 |
| regions                     | 1,005                 | 26                     | 1,687                 | 357               | 4,160                 | 1,656                 | 11.1                | 0.2               | 17.5                | 3.1               | 46.6                | 18.7                | 23.2                | 18.3                 | 27.8                               | 15.6                      | 15.0                | 6,432           |
| south east                  |                       |                        |                       |                   |                       |                       |                     |                   |                     |                   |                     |                     |                     |                      |                                    |                           |                     |                 |
| regions<br>rest of          | 1,257                 | 137                    | 1,977                 | 608               | 4,349                 | 1,648                 | 11.5                | 1.1               | 17.2                | 4.9               | 40.8                | 15.4                | 19.0                | 23.6                 | 30.7                               | 13.9                      | 12.8                | 6,791           |
| England<br><b>all homes</b> | 1,165<br><b>1,147</b> | 92<br><b>92</b>        | 1,797<br><b>1,820</b> | 461<br><b>470</b> | 3,623<br><b>4,001</b> | 1,266<br><b>1,470</b> | 11.0<br><b>11.2</b> | 0.8<br><b>0.8</b> | 16.6<br><b>17.0</b> | 3.8<br><b>4.0</b> | 37.3<br><b>41.1</b> | 12.5<br><b>14.6</b> | 24.3<br><b>22.4</b> | 21.7<br><b>21.3</b>  | 30.8<br><b>29.9</b>                | 12.1<br><b>13.7</b>       | 11.1<br><b>12.7</b> | 8,966<br>22,189 |

Note: all costs (standardised and require expenditure) as at 2007 prices

| AnnexTab                              | ole 3A.        | 3: Requ.<br>hous | uired e<br>seholo | expend<br>Is, 2007 | iture a        | and star           | ndardi       | sed cos        | sts for      | urgent         | , basio      | c and c            | ompi         | rehens                      | ive rep                                  | airs -                         | -                           |                              |
|---------------------------------------|----------------|------------------|-------------------|--------------------|----------------|--------------------|--------------|----------------|--------------|----------------|--------------|--------------------|--------------|-----------------------------|------------------------------------------|--------------------------------|-----------------------------|------------------------------|
|                                       |                | average          | require           | ed expend          | liture (£      | )                  |              | average        | standar      | dised cos      | ts (£/m      | <sup>2</sup> )     | per<br>band  | rcentage<br>of stand<br>r   | of group<br>lardised o<br>epair cos      | within<br>compre               | n each<br>ehensive          | number                       |
|                                       | ur             | gent<br>median   | b                 | asic<br>median     | compr<br>mean  | ehensive<br>median | urg<br>mean  | gent<br>median | ba<br>mean   | asic<br>median | compro       | ehensive<br>median | zero<br>cost | up to<br>£10 m <sup>2</sup> | <b>£11-</b><br><b>£50</b> m <sup>2</sup> | £51-<br>£100<br>m <sup>2</sup> | over<br>£100 m <sup>2</sup> | of house-<br>holds<br>(000s) |
| household<br>composition              |                |                  |                   |                    |                |                    |              |                |              |                |              |                    |              |                             |                                          |                                |                             | ()                           |
| 60<br>couple 60 or<br>over            | 855<br>747     | 31<br>0          | 1,494<br>1,346    | 403<br>170         | 3,537<br>3,833 | 1,407<br>1,139     | 7.6<br>5.7   | 0.2<br>0.0     | 13.0<br>9.9  | 3.1<br>0.9     | 35.2<br>33.5 | 13.3<br>9.8        | 24.5<br>28.6 | 20.4<br>21.7                | 32.5<br>27.3                             | 12.2<br>12.2                   | 10.4<br>10.1                | 4,007<br>3,754               |
| couple with children                  | 1,082          | 93               | 1,848             | 558                | 4,163          | 1,505              | 8.7          | 0.7            | 14.5         | 4.0            | 36.8         | 12.6               | 23.6         | 22.4                        | 29.2                                     | 13.8                           | 11.0                        | 5,050                        |
| lone parent<br>multi-person<br>h'hold | 1,000<br>1,385 | 292<br>346       | 1,604<br>2,177    | 636<br>883         | 3,541<br>4,323 | 1,585<br>2,003     | 11.8<br>12.5 | 2.8<br>2.9     | 18.1<br>18.9 | 6.4<br>7.2     | 43.4<br>41.4 | 19.1<br>19.2       | 17.7<br>14.9 | 22.0<br>23.2                | 32.5<br>31.5                             | 13.2<br>17.5                   | 14.6<br>12.8                | 1,462<br>1,527               |
| one person<br>under 60                | 1,115          | 196              | 1,727             | 585                | 3,533          | 1,469              | 13.6         | 2.5            | 20.6         | 6.6            | 45.4         | 19.3               | 19.0         | 19.9                        | 30.9                                     | 15.8                           | 14.5                        | 2,413                        |
| one person<br>60 or over              | 1,068          | 77               | 1,679             | 351                | 3,780          | 1,323              | 10.7         | 0.8            | 16.7         | 3.6            | 43.7         | 15.5               | 20.4         | 22.0                        | 30.1                                     | 13.9                           | 13.7                        | 3,167                        |
| age of<br>oldest                      |                |                  |                   |                    |                |                    |              |                |              |                |              |                    |              |                             |                                          |                                |                             |                              |
| years<br>60 years or<br>more          | 1,038<br>931   | 137<br>0         | 1,718<br>1,565    | 566<br>278         | 3,790<br>3,894 | 1,505<br>1,309     | 10.0<br>8.1  | 1.2<br>0.0     | 16.0<br>13.2 | 4.7<br>2.3     | 39.0<br>38.1 | 14.9<br>12.7       | 21.8<br>24.0 | 21.2<br>22.3                | 30.8<br>29.1                             | 14.1<br>13.0                   | 12.0<br>11.7                | 13,443<br>7,937              |
| 75 years or more                      | 980            | 15               | 1,652             | 321                | 4,004          | 1,361              | 9.0          | 0.1            | 14.6         | 2.9            | 40.6         | 14.0               | 21.3         | 23.3                        | 29.7                                     | 12.7                           | 13.0                        | 2,936                        |
| age of<br>youngest                    |                |                  |                   |                    |                |                    |              |                |              |                |              |                    |              |                             |                                          |                                |                             |                              |
| under 5<br>years                      | 1,096          | 151              | 1,840             | 628                | 3,958          | 1,516              | 11.0         | 1.3            | 17.5         | 5.5            | 41.9         | 15.7               | 21.2         | 21.6                        | 29.7                                     | 14.3                           | 13.2                        | 2,548                        |

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|                                                                                                                           |                                     | hous                        | seholo                                    | ls, 2007                        | ' (Con                                    | tinued)                                   |                                   |                                 |                                      |                                 |                                      |                                     |                                      |                                      |                                      |                                      |                                     |                                           |
|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------|-------------------------------------------|---------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------|---------------------------------|--------------------------------------|---------------------------------|--------------------------------------|-------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------------|
|                                                                                                                           |                                     | average                     | require                                   | ed expend                       | liture (£                                 | )                                         |                                   | average                         | standar                              | dised cos                       | ts (£/m                              | 2)                                  | per<br>band                          | centage<br>of stand<br>r             | of group<br>lardised o<br>epair cos  | within<br>compre<br>sts              | each<br>hensive                     | number                                    |
|                                                                                                                           | ur                                  | gent                        | b                                         | asic                            | compre                                    | ehensive                                  | ur                                | gent                            | ba                                   | asic                            | compr                                | ehensive                            | zero                                 | up to                                | £11-                                 | £51-<br>£100                         | over<br>£100                        | of house-<br>holds                        |
|                                                                                                                           | mean                                | median                      | mean                                      | median                          | mean                                      | median                                    | mean                              | median                          | mean                                 | median                          | mean                                 | median                              | cost                                 | £10 m <sup>2</sup>                   | £50 m <sup>2</sup>                   | m <sup>2</sup>                       | m <sup>2</sup>                      | (000s)                                    |
| under 16<br>years<br>16 years or                                                                                          | 1,066                               | 140                         | 1,793                                     | 590                             | 3,992                                     | 1,513                                     | 9.6                               | 1.1                             | 15.5                                 | 4.6                             | 38.6                                 | 14.2                                | 22.0                                 | 22.3                                 | 30.1                                 | 13.6                                 | 12.0                                | 6,122                                     |
| more                                                                                                                      | 971                                 | 54                          | 1,608                                     | 401                             | 3,763                                     | 1,392                                     | 9.2                               | 0.4                             | 14.8                                 | 3.3                             | 38.8                                 | 14.2                                | 22.9                                 | 21.3                                 | 30.2                                 | 13.7                                 | 11.8                                | 15,258                                    |
| income<br>groups<br>1st quintile<br>(lowest)<br>2nd quintile<br>3rd quintile<br>4th quintile<br>5th quintile<br>(highest) | 1,275<br>1,027<br>906<br>915<br>866 | 217<br>120<br>81<br>29<br>0 | 1,877<br>1,636<br>1,563<br>1,598<br>1,631 | 624<br>460<br>466<br>392<br>267 | 4,117<br>3,552<br>3,823<br>3,866<br>3,795 | 1,778<br>1,365<br>1,464<br>1,393<br>1,178 | 13.5<br>10.6<br>8.5<br>7.6<br>6.3 | 2.3<br>1.2<br>0.7<br>0.2<br>0.0 | 19.8<br>16.6<br>14.4<br>12.9<br>11.3 | 6.6<br>4.5<br>4.1<br>2.9<br>1.5 | 48.8<br>40.4<br>39.5<br>35.5<br>29.3 | 20.5<br>15.5<br>15.2<br>12.1<br>9.0 | 18.1<br>21.6<br>21.7<br>23.8<br>27.9 | 19.8<br>21.4<br>20.3<br>22.9<br>23.6 | 30.7<br>30.0<br>32.3<br>29.1<br>28.8 | 14.7<br>14.1<br>14.1<br>13.9<br>11.7 | 16.7<br>12.8<br>11.7<br>10.3<br>8.0 | 4,272<br>4,406<br>4,217<br>4,152<br>4,334 |
| <b>living in</b><br>poverty<br>in poverty<br>not in<br>poverty                                                            | 1,317<br>932                        | 241<br>34                   | 1,935<br>1,605                            | 657<br>407                      | 4,264<br>3,738                            | 1,824<br>1,361                            | 14.0<br>8.3                       | 2.5<br>0.3                      | 20.4<br>13.9                         | 6.9<br>3.2                      | 50.4<br>36.3                         | 21.0<br>12.9                        | 17.5<br>23.7                         | 19.7<br>22.0                         | 31.0<br>30.0                         | 14.3<br>13.6                         | 17.5<br>10.7                        | 3,665<br>17,715                           |
| workless<br>households<br>workless<br>not workless                                                                        | 1,247<br>995                        | 285<br>94                   | 1,840<br>1,706                            | 628<br>520                      | 3,831<br>3,875                            | 1,584<br>1,472                            | 14.0<br>8.9                       | 3.0<br>0.8                      | 20.2<br>14.7                         | 6.6<br>4.0                      | 46.6<br>37.2                         | 19.6<br>14.0                        | 17.5<br>23.1                         | 22.2<br>21.3                         | 30.5<br>30.6                         | 14.0<br>14.0                         | 15.9<br>11.1                        | 2,639<br>13,466                           |

Annex Table 3A.3: Required expenditure and standardised costs for urgent, basic and comprehensive repairs –

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| AnnexTab                                                                                                               | ole 3A.                                      | 3: Requ<br>hous                     | uired<br>seholo                                    | expend<br>ds, 2007                     | iture a<br>7 <i>(Con</i>                           | and star<br><i>tinued)</i>                         | ndardi                                   | sed cos                                | sts for                                      | urgent                                 | , basio                                      | c and co                                     | ompi                                         | rehensi                                      | ive rep                                      | airs –                                       |                                              |                                                    |
|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-------------------------------------|----------------------------------------------------|----------------------------------------|----------------------------------------------------|----------------------------------------------------|------------------------------------------|----------------------------------------|----------------------------------------------|----------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------------|
|                                                                                                                        |                                              | average                             | require                                            | ed expend                              | liture (£                                          | )                                                  |                                          | average                                | standard                                     | dised cos                              | ts (£/m                                      | 2)                                           | per<br>band                                  | rcentage<br>of stand<br>re                   | of group<br>lardised<br>epair cos            | o within<br>compre<br>sts                    | each<br>hensive                              | number                                             |
|                                                                                                                        | ur<br>mean                                   | gent<br>median                      | b<br>mean                                          | asic<br>median                         | compr<br>mean                                      | ehensive<br>median                                 | un<br>mean                               | gent<br>median                         | ba<br>mean                                   | asic<br>median                         | compre<br>mean                               | ehensive<br>median                           | zero<br>cost                                 | up to<br>£10 m <sup>2</sup>                  | £11-<br>£50 m <sup>2</sup>                   | £51-<br>£100<br>m <sup>2</sup>               | over<br>£100<br>m <sup>2</sup>               | of house-<br>holds<br>(000s)                       |
| long term<br>ill/disability                                                                                            | 067                                          | 74                                  | 1 560                                              | 402                                    | 2 710                                              | 1 200                                              | 0.7                                      | 0.7                                    | 15.0                                         | 2.7                                    | 40.7                                         | 14.0                                         | 01.0                                         | 22.0                                         | 20.7                                         | 10 5                                         | 12.0                                         | 6 /12                                              |
| no<br>ethnicity of                                                                                                     | 1,012                                        | 85                                  | 1,701                                              | 468                                    | 3,876                                              | 1,443                                              | 9.7                                      | 0.7                                    | 14.9                                         | 3.7                                    | 37.9                                         | 13.9                                         | 23.0                                         | 21.4                                         | 30.4                                         | 13.8                                         | 11.4                                         | 14,967                                             |
| HRP<br>white<br>black<br>Asian                                                                                         | 964<br>1,296<br>1,360                        | 52<br>536<br>214                    | 1,626<br>1,812<br>2,146                            | 409<br>957<br>983                      | 3,797<br>3,645<br>4,288                            | 1,381<br>1,799<br>2,101                            | 8.8<br>15.2<br>14.3                      | 0.4<br>5.4<br>1.7                      | 14.4<br>20.5<br>21.6                         | 3.3<br>9.4<br>7.0                      | 38.0<br>43.5<br>46.5                         | 13.7<br>21.1<br>19.9                         | 23.3<br>15.7<br>16.7                         | 21.6<br>21.0<br>20.6                         | 30.1<br>32.9<br>31.5                         | 13.5<br>16.5<br>16.5                         | 11.5<br>14.0<br>14.7                         | 19,471<br>613<br>815                               |
| all minority                                                                                                           | 1,383                                        | 340                                 | 2,062<br>2,018                                     | 929                                    | 4,556<br>4,149                                     | 2,074<br>2,032                                     | 14.8                                     | 3.1                                    | 21.5                                         | 8.3                                    | 48.9<br>46.2                                 | 22.9                                         | 16.1                                         | 21.0                                         | 31.4                                         | 13.7<br>15.8                                 | 15.7                                         | 481<br>1,909                                       |
| residence<br>less than 1<br>year<br>1-4 years<br>5-9 years<br>10-19 years<br>20-29 years<br>30 or more<br>years<br>all | 1,094<br>896<br>868<br>952<br>1,041<br>1,294 | 143<br>76<br>26<br>35<br>113<br>120 | 1,716<br>1,491<br>1,435<br>1,578<br>1,835<br>2,149 | 533<br>358<br>330<br>417<br>579<br>656 | 3,686<br>3,323<br>3,224<br>3,737<br>4,427<br>5,086 | 1,320<br>1,033<br>1,059<br>1,429<br>1,831<br>2,340 | 10.7<br>9.3<br>8.5<br>8.3<br>9.1<br>11.0 | 1.3<br>0.7<br>0.2<br>0.3<br>0.8<br>0.9 | 16.5<br>15.2<br>13.3<br>13.4<br>15.3<br>18.1 | 5.0<br>3.2<br>2.9<br>3.3<br>4.3<br>5.6 | 40.4<br>37.3<br>33.5<br>36.2<br>40.9<br>48.5 | 15.8<br>11.3<br>10.6<br>13.2<br>17.1<br>22.6 | 22.5<br>25.2<br>27.0<br>23.3<br>18.8<br>15.3 | 21.7<br>22.8<br>22.2<br>21.9<br>21.3<br>18.8 | 26.4<br>27.5<br>29.0<br>31.3<br>32.7<br>34.3 | 17.5<br>12.4<br>11.7<br>13.2<br>14.7<br>15.5 | 11.9<br>12.0<br>10.0<br>10.4<br>12.5<br>16.0 | 2,135<br>4,365<br>4,452<br>4,409<br>2,983<br>3,035 |
| households                                                                                                             | 998                                          | 81                                  | 1,661                                              | 448                                    | 3,829                                              | 1,429                                              | 9.3                                      | 0.7                                    | 15.0                                         | 3.7                                    | 38.7                                         | 14.2                                         | 22.6                                         | 21.6                                         | 30.2                                         | 13.7                                         | 11.9                                         | 21,380                                             |

Base: all households

Note: all costs (standardised and require expenditure) as at 2007 prices

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| Annex Table 3A.4: Average u                                                                                                                                                              | rgent st                                                             | andarc                                                              | lised re                                                            | epair co                                                            | osts 19                                                          | 96-2007                                                         | at                                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------|
| constant (2001) prices                                                                                                                                                                   |                                                                      |                                                                     |                                                                     |                                                                     |                                                                  | mean                                                            | cost (£/m²)                                                      |
|                                                                                                                                                                                          | 1996                                                                 | 2001                                                                | 2003                                                                | 2004                                                                | 2005                                                             | 2006                                                            | 2007                                                             |
| <b>dwelling age</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>post 1980                                                                                                            | 32.91<br>20.46<br>14.31<br>7.61<br>5.03                              | 25.65<br>15.33<br>10.45<br>8.67<br>3.27                             | 23.30<br>15.30<br>10.13<br>7.01<br>3.02                             | 21.68<br>14.28<br>9.22<br>7.44<br>2.81                              | 17.90<br>11.58<br>7.48<br>6.13<br>2.33                           | 16.16<br>10.56<br>6.80<br>6.26<br>2.40                          | 16.51<br>10.50<br>7.28<br>6.08<br>2.23                           |
| <b>tenure</b><br>owner occupied<br>private rented<br>local authority<br>RSL                                                                                                              | 14.19<br>35.85<br>18.71<br>13.19                                     | 9.95<br>30.20<br>16.14<br>9.45                                      | 9.76<br>24.98<br>14.65<br>10.45                                     | 9.09<br>22.69<br>15.20<br>8.94                                      | 7.32<br>18.86<br>13.25<br>7.10                                   | 6.78<br>18.10<br>11.67<br>6.89                                  | 6.77<br>17.15<br>12.21<br>7.03                                   |
| <b>type of area</b><br>city and other urban centres<br>suburban residential areas<br>rural areas                                                                                         | 25.45<br>14.48<br>15.86                                              | 19.89<br>9.55<br>11.77                                              | 18.13<br>9.31<br>11.42                                              | 16.69<br>8.79<br>11.31                                              | 14.31<br>7.14<br>9.21                                            | 12.76<br>6.75<br>9.42                                           | 12.76<br>6.78<br>9.29                                            |
| <b>region</b><br>northern regions<br>south east regions<br>rest of England                                                                                                               | 16.11<br>16.37<br>18.24                                              | 11.45<br>14.43<br>12.57                                             | 11.04<br>13.03<br>11.75                                             | 10.83<br>11.67<br>11.12                                             | 8.82<br>9.93<br>8.92                                             | 8.18<br>9.04<br>8.56                                            | 8.52<br>8.82<br>8.39                                             |
| dwelling type<br>small terrace<br>medium/large terrace<br>semi-detached house<br>detached<br>bungalow<br>converted flat<br>purpose built flat, low rise<br>purpose built flat, high rise | 26.36<br>18.00<br>14.28<br>10.07<br>10.07<br>34.67<br>18.81<br>25.41 | 17.81<br>13.66<br>10.31<br>6.44<br>11.25<br>39.25<br>12.68<br>21.78 | 15.15<br>13.10<br>10.97<br>5.61<br>10.72<br>38.45<br>10.83<br>15.47 | 14.37<br>12.13<br>10.63<br>5.17<br>10.01<br>30.67<br>11.60<br>19.19 | 11.94<br>9.66<br>8.20<br>4.40<br>7.34<br>24.14<br>10.78<br>21.33 | 9.66<br>9.66<br>7.45<br>4.20<br>8.86<br>21.51<br>10.05<br>16.17 | 10.56<br>10.07<br>7.74<br>4.03<br>8.17<br>21.19<br>9.18<br>15.14 |
| <b>market renewal pathfinder</b><br>pathfinder area<br>located in North or West Midlands<br>but not in pathfinder area                                                                   | 26.55<br>16.40                                                       | 15.73<br>12.03                                                      | 21.70<br>10.11                                                      | 20.66<br>9.64                                                       | 16.73<br>7.92                                                    | 14.14<br>7.71                                                   | 15.32<br>7.65                                                    |
| located in another region                                                                                                                                                                | 16.53                                                                | 12.81                                                               | 11.94                                                               | 11.21                                                               | 9.20                                                             | 8.60                                                            | 8.56                                                             |
| all dwellings                                                                                                                                                                            | 17.04                                                                | 12.81                                                               | 11.94                                                               | 11.21                                                               | 9.20                                                             | 8.60                                                            | 8.56                                                             |
| Note: all costs are at 2001 prices                                                                                                                                                       |                                                                      |                                                                     |                                                                     |                                                                     |                                                                  |                                                                 |                                                                  |

## Annex Table 3A.5: Average basic standardised repair costs 1996-2007 at constant (2001) prices mean cost (£/m²)

| constant (2001) prices                                                                                                                                                                          |                                                                      |                                                                      |                                                                      |                                                                     |                                                                     | mean                                                                | COSt (L/III-)                                                       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|---------------------------------------------------------------------|
|                                                                                                                                                                                                 | 1996                                                                 | 2001                                                                 | 2003                                                                 | 2004                                                                | 2005                                                                | 2006                                                                | 2007                                                                |
| <b>dwelling age</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>post 1980                                                                                                                   | 46.30<br>29.53<br>20.07<br>10.42<br>6.14                             | 38.47<br>24.78<br>15.65<br>11.48<br>4.27                             | 36.73<br>25.72<br>16.76<br>10.55<br>4.33                             | 33.63<br>24.07<br>15.40<br>10.55<br>3.96                            | 29.83<br>20.94<br>13.20<br>9.30<br>3.53                             | 27.62<br>18.29<br>11.54<br>9.03<br>3.41                             | 26.52<br>16.28<br>11.16<br>7.99<br>2.88                             |
| <b>tenure</b><br>owner occupied<br>private rented<br>local authority<br>RSL                                                                                                                     | 21.06<br>47.60<br>23.77<br>16.37                                     | 16.23<br>40.33<br>21.11<br>11.99                                     | 16.89<br>35.35<br>20.67<br>15.18                                     | 15.59<br>32.06<br>20.42<br>12.61                                    | 13.70<br>28.15<br>17.79<br>10.71                                    | 11.10<br>26.57<br>15.74<br>10.09                                    | 6.77<br>24.28<br>15.89<br>9.50                                      |
| <b>type of area</b><br>city and other urban centres<br>suburban residential areas<br>rural areas                                                                                                | 34.33<br>20.55<br>23.05                                              | 27.74<br>14.95<br>18.09                                              | 26.47<br>15.77<br>18.99                                              | 24.05<br>14.66<br>18.28                                             | 21.68<br>12.84<br>15.95                                             | 20.01<br>11.63<br>15.45                                             | 18.59<br>10.60<br>14.18                                             |
| <b>region</b><br>northern regions<br>south east regions<br>rest of England                                                                                                                      | 22.91<br>22.40<br>25.80                                              | 18.52<br>20.22<br>18.58                                              | 18.03<br>20.24<br>18.98                                              | 17.58<br>17.81<br>17.61                                             | 15.40<br>15.86<br>15.28                                             | 14.01<br>14.42<br>14.23                                             | 13.35<br>13.16<br>12.67                                             |
| <b>dwelling type</b><br>small terrace<br>medium/large terrace<br>semi-detached house<br>detached<br>bungalow<br>converted flat<br>purpose built flat, low rise<br>purpose built flat, high rise | 37.14<br>26.16<br>21.51<br>15.14<br>16.30<br>45.02<br>21.59<br>27.54 | 27.29<br>22.45<br>17.08<br>10.77<br>16.77<br>49.44<br>14.60<br>22.36 | 24.50<br>22.15<br>19.40<br>10.44<br>17.45<br>50.78<br>13.37<br>15.26 | 22.87<br>20.26<br>18.52<br>9.88<br>15.68<br>40.90<br>13.57<br>17.93 | 20.57<br>17.20<br>15.96<br>9.19<br>12.76<br>33.73<br>12.67<br>20.89 | 17.35<br>16.73<br>13.77<br>8.37<br>13.45<br>31.31<br>12.41<br>17.43 | 16.33<br>16.15<br>12.49<br>6.98<br>11.73<br>30.33<br>11.41<br>16.85 |
| <b>market renewal pathfinder</b><br>pathfinder area<br>located in North or West Midlands<br>but not in pathfinder area<br>located in another region                                             | 34.73<br>22.94<br>23.52                                              | 24.74<br>18.76<br>18.92                                              | 30.97<br>17.09<br>19.49                                              | 29.69<br>16.23<br>17.73                                             | 25.84<br>14.24<br>15.57                                             | 21.14<br>13.48<br>14.23                                             | 21.24<br>12.34<br>12.92                                             |
| all dwellings                                                                                                                                                                                   | 23.92                                                                | 19.06                                                                | 19.09                                                                | 17.66                                                               | 15.49                                                               | 14.22                                                               | 13.02                                                               |
| Note: all costs are at 2001 prices                                                                                                                                                              |                                                                      |                                                                      |                                                                      |                                                                     |                                                                     |                                                                     |                                                                     |

| Annex Table 3A.6: Average basic standardised repair costs | 1996-2007 at     |
|-----------------------------------------------------------|------------------|
| constant (2001) prices                                    | mean cost (£/m²) |

|                                                                                                                                                                                                 | 1996                                                                 | 2001                                                                 | 2003                                                                 | 2004                                                                 | 2005                                                                 | 2006                                                                 | 2007                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------------------|
| <b>dwelling age</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>post 1980                                                                                                                   | 77.60<br>59.51<br>42.46<br>26.20<br>14.35                            | 64.28<br>52.86<br>36.55<br>26.14<br>9.90                             | 63.81<br>55.04<br>39.48<br>27.67<br>10.51                            | 60.43<br>54.36<br>38.57<br>28.37<br>9.53                             | 57.08<br>51.95<br>35.62<br>27.10<br>10.00                            | 61.37<br>52.54<br>37.43<br>29.78<br>11.12                            | 57.91<br>47.48<br>36.60<br>26.89<br>10.62                            |
| <b>tenure</b><br>owner occupied<br>private rented<br>local authority<br>RSL                                                                                                                     | 43.62<br>75.96<br>45.51<br>28.47                                     | 34.14<br>67.86<br>43.00<br>23.66                                     | 37.00<br>63.82<br>42.24<br>29.88                                     | 35.69<br>59.52<br>44.10<br>26.75                                     | 34.27<br>55.22<br>40.12<br>25.16                                     | 36.47<br>58.50<br>40.96<br>29.16                                     | 33.19<br>53.44<br>40.63<br>26.82                                     |
| <b>type of area</b><br>city and other urban centres<br>suburban residential areas<br>rural areas                                                                                                | 57.90<br>42.00<br>47.58                                              | 49.80<br>32.89<br>35.81                                              | 50.24<br>35.50<br>38.71                                              | 47.88<br>34.28<br>38.83                                              | 46.11<br>32.70<br>36.11                                              | 49.89<br>34.78<br>38.78                                              | 46.13<br>31.83<br>36.40                                              |
| <b>region</b><br>northern regions<br>south east regions<br>rest of England                                                                                                                      | 45.58<br>45.38<br>47.82                                              | 39.13<br>38.18<br>37.20                                              | 40.02<br>41.13<br>38.67                                              | 41.59<br>38.27<br>36.39                                              | 39.13<br>36.62<br>34.42                                              | 41.71<br>38.88<br>36.89                                              | 40.45<br>35.63<br>32.61                                              |
| <b>dwelling type</b><br>small terrace<br>medium/large terrace<br>semi-detached house<br>detached<br>bungalow<br>converted flat<br>purpose built flat, low rise<br>purpose built flat, high rise | 65.59<br>50.13<br>46.32<br>32.29<br>40.65<br>70.97<br>36.66<br>40.85 | 53.95<br>43.45<br>37.66<br>23.57<br>36.01<br>76.11<br>27.01<br>35.59 | 48.36<br>44.89<br>42.24<br>23.14<br>46.46<br>77.78<br>27.15<br>28.41 | 46.88<br>42.08<br>42.70<br>22.92<br>43.64<br>64.62<br>27.06<br>34.90 | 44.96<br>38.79<br>40.51<br>24.14<br>38.51<br>59.78<br>26.13<br>34.63 | 47.17<br>42.81<br>42.48<br>25.53<br>41.53<br>63.25<br>28.85<br>32.65 | 43.05<br>40.31<br>39.84<br>21.86<br>36.10<br>59.68<br>27.93<br>33.33 |
| market renewal pathfinder<br>pathfinder area<br>located in North or West Midlands<br>but not in pathfinder area<br>located in another region                                                    | 57.63<br>43.18<br>47.39                                              | 51.78<br>39.62<br>36.36                                              | 57.40<br>39.38<br>38.91                                              | 61.32<br>38.76<br>36.86                                              | 54.67<br>37.02<br>34.97                                              | 50.04<br>40.84<br>37.06                                              | 48.28<br>37.85<br>33.84                                              |
| all dwellings                                                                                                                                                                                   | 46.42                                                                | 38.06                                                                | 39.82                                                                | 38.48                                                                | 36.46                                                                | 38.90                                                                | 35.81                                                                |
| Note: all costs are at 2001 prices                                                                                                                                                              |                                                                      |                                                                      |                                                                      |                                                                      |                                                                      |                                                                      |                                                                      |

## Chapter 4: Accessible and adaptable homes

This chapter examines how far the existing housing stock is accessible for people with mobility problems to live in or to visit and how easily it could be modified to improve its overall accessibility. The chapter first identifies those households who might need or benefit from accessible homes and then details features that can make homes more accessible and adaptable for occupants and their visitors with mobility problems. Each feature is assessed in terms of its frequency within the housing stock as a whole in 2007 and how much work would be required to provide it. The chapter then looks at the combination of features that would make a home '*visitable*' by people with mobility problems, detailing which parts of the housing stock are already visitable or could readily be made so. It then explores similarly which parts of the stock have or can more readily achieve the combination of all features required to make a home '*accessible and adaptable*'. Finally, the chapter assesses the extent to which accessible and easily adaptable homes are occupied by people who are most likely to benefit from living in such a home and issues related to such homes being available to households.

### **Key Findings**

- The 2007 housing stock performed well in providing some accessibility features such as: living room already at ground floor or entrance level (94%); bedroom, or space to provide one, at ground floor or entrance level (83%); and space for turning of wheelchairs in kitchens and living rooms (68%). It was the larger, and therefore usually more expensive, dwellings that were the most likely to provide these.
- However only 16% of homes had level access to the main entrance and 20% had a flush threshold to the main entrance. This means that a person with mobility problems may experience some difficulty in getting to and through the front door of the majority of homes. Bungalows did not perform significantly better than other type of homes in respect of these two features.
- About 740,000 (3.4%) of homes across the whole stock had all four features that enable a person with mobility problems to readily visit (level access to main entrance, flush threshold to main entrance, WC at entry level and circulation space). Only minor work would be necessary to provide these in an additional 2.6 million (12% of) homes. It was not feasible to provide all four features in 28% (6.2 million) of homes.
- The biggest obstacles to making more homes 'visitable' are associated with the older stock. Just over half (55%) of pre-1919 dwellings were not feasible to make visitable compared with only 20% of homes built after 1990.
- Just over half of all homes (51%) met at least six of the eleven criteria for an 'accessible and adaptable' home, although only around 110,000 (0.5% of) homes met all. With only minor works, the number of homes meeting all eleven criteria could be raised to about 920,000.

- Around one third of the housing stock could not be made to comply with these eleven criteria. Older and/or smaller homes are most likely to fall into this group – particularly small terraced houses where 77% were not feasible to improve to this level.
- People with existing mobility problems and older people were more likely than others to be living in more accessible homes: some 80% of already accessible homes were occupied by a household containing at least one person aged 60 years or more or a younger person with a mobility problem (and similarly 58% of homes that could be made so with minor work only).

#### The need for more accessible and adaptable homes

An ageing society presents many challenges including planning for the provision of suitable housing to meet the needs of older people. Older people and others with mobility problems may find that their accommodation limits their independence and social life as well as presenting increased safety hazards.

This need is recognised in current Building Regulations (Part M) which cover disabled access to and use of buildings.<sup>1</sup> The Lifetimes Homes Standard, developed some years ago, goes further in additionally addressing the 'useability' of homes.<sup>2</sup> It also stresses the need to provide accessible and adaptable accommodation for everyone from young families to older people and for individuals with a temporary or permanent physical impairment. The recently developed Code for Sustainable Homes also awards points for compliance with Lifetime Homes.<sup>3</sup>

All of these regulations and standards only apply to *new* housing. Given that there are around 22 million homes in England, it will take a very long time for these to make a significant impact on the housing stock as a whole.

Overall some 4.5 million households (21% of all) included one or more persons with a reported mobility problem, the majority of whom were aged 60 years or more, Table 4.1.<sup>4</sup> Over 1.4 million (32%) of these households included persons who used some form of walking or lifting aid in the home such as a stick, a walking frame or a chair lift. Another 226,000 households included persons using a wheelchair in the home while nearly 300,000 included people who could not move around their home at all or were dependent on being carried.<sup>5</sup>

- <sup>1</sup> http://www.building-regs.org.uk/part\_m.html
- <sup>2</sup> http://www.lifetimehomes.org.uk/
- <sup>3</sup> http://www.planningportal.gov.uk/uploads/code\_for\_sust\_homes.pdf)
- <sup>4</sup> Mobility problems are self assessed by the respondent during the household survey.
- <sup>5</sup> Estimates vary for the total number of wheelchair users in England but range from around 600,000 to 750,000. These include full time users, occasional users (including those who use their wheelchair outside of the home only), and temporary users (e.g. during a recovery period following an accident) and, besides people living in their own homes, cover people living in a range of other residential premises.

|                                                                | number of households (000s) | % of households |  |  |
|----------------------------------------------------------------|-----------------------------|-----------------|--|--|
| age of person with mobility problem                            |                             |                 |  |  |
| 75 or more                                                     | 1,242                       | 27.9            |  |  |
| 60-74                                                          | 1,517                       | 34.0            |  |  |
| under 60                                                       | 1,698                       | 38.1            |  |  |
| all                                                            | 4,457                       | 100.0           |  |  |
| use of mobility aid                                            |                             |                 |  |  |
| no aids used in the home                                       | 2,511                       | 56.3            |  |  |
| uses at least one form of walking or lifting aid               | 1,429                       | 32.1            |  |  |
| always or partly uses a wheelchair at home                     | 226                         | 5.1             |  |  |
| unable to move around the home/requires                        |                             |                 |  |  |
| being carried                                                  | 292                         | 6.5             |  |  |
| all                                                            | 4,457                       | 100.0           |  |  |
| Base: all households including persons with a mobility problem |                             |                 |  |  |

#### Table 4.1: Households including persons with a mobility problem, 2007

Note: where more than one person with a mobility problem is present in the household the aid used by the most disabled person only is included.

As might be expected, the likelihood of a person having a mobility problem increases with age.<sup>6</sup> People aged 75 years or over with a mobility problem were least likely manage around their home without some form of walking or lifting aid (walking frame, walking stick, stair lift or other aids such as a bath hoist), Figure 4.1. A home that is accessible is a particular priority for those living alone. Almost half (47%) of those aged 75 years or over with a mobility problem were living alone in 2007.

<sup>&</sup>lt;sup>6</sup> The survey estimated that some 10% of <u>people</u> across all households in England had a problem affecting their mobility but this increased to 22% of all people aged 60-74, 36% of those aged 75-84 and 45% of those aged 85 or over.



Accessible homes have wider benefits than those of meeting the needs of people with mobility problems. While older people are most likely to have such needs, the statistics that underpin the Housing Health and Safety Rating System (HHSRS) also indicate that such people are more vulnerable to sustaining a serious injury by falling on stairs and steps or on the level. In other words more accessible homes will help prevent accidents, particularly among older people, that may themselves cause mobility problems.

Others may benefit from a more accessible and adaptable home in addition to older people and those with an existing mobility problem. Young families in particular may also have problems negotiating steps and stairs, for example, when trying to manage a pushchair. There were 2.5 million households in 2007 with at least one child under 5 years of age.

#### Visitable, accessible and adaptable homes

The survey collects some but not comprehensive information related to key accessibility features derived in the Building Regulations and Lifetime Homes. This, together with other information about the size, type and configuration of the dwelling and its rooms has been used to assess whether these features are present and, if not, how easily they could be provided.

For this chapter the overall accessibility and adaptability of the home is considered in terms of whether eleven features listed in Box 1 are present. These features are based on the lifetime homes aspiration to enable independent living for all by providing a home that is accessible and can be adapted to meet mobility needs. For this chapter, if all eleven features are present then the home is considered 'accessible and adaptable' to facilitate independent living for a disabled occupant.

The chapter also considers a subset of these features (the first four in Box 1) which focus on ensuring any person with a mobility problem can easily visit a property: that is, gain access to the home and move around/make use of a toilet on the entrance floor.

It is important to emphasise that homes do not have to have all four/eleven features to meet the particular needs of visitors or occupants with mobility problems. Any particular person with a mobility problem may not need all features (and therefore their mobility requirements may be met with a home that is nevertheless not accessible or adaptable). The purpose of making homes visitable and accessible and adaptable is to ensure as far as practical that such properties can meet the potential needs of anyone with mobility problems.

#### Box 1: Visitable, accessible and adaptable homes

Visitable

Accessible and Adaptable

**Visitable** – this covers access into the dwelling and use by a disabled visitor. It roughly equates with the requirements of part M of the Building Regulations.

**Accessible and adaptable** – this covers all of the above and also requires the dwelling to have some, but not all, additional features specified by Lifetime Homes.

- 1. **Level access to main entrance** there are no steps between the pavement (or any gate) and the entrance door.
- 2. **Flush threshold to main entrance** the threshold to the main entrance door has no obstruction greater than 15mm. This prevents the threshold from being a trip hazard and allows a wheelchair user to easily enter through the main door.
- 3. Width of internal doorways and circulation space conforms to **Part M** complies with requirements of Building Regulations.
- 4. **WC at entrance level** this is any WC at entrance level as EHCS does not indicate whether it is wheelchair accessible.
- 5. **Car parking size and proximity to dwelling** There must be adequate street parking or a sufficiently sized parking area on the plot of the property to accommodate a family sized car. This slope of the plot must not be greater than 1 in 12 (Lifetimes homes specifies 1 in 20).
- 6. Living room at ground floor or entrance level or space to provide one there is a living room or space to provide one at entrance level.
- Bedroom at ground floor or entrance level or space to provide one – there is a bedroom or space to provide one at entrance level. The area must be sufficient to accommodate a single bed, bedside cabinet and space to manoeuvre a wheelchair.
- 8. **Space for turning wheelchairs in kitchens, dining areas and living rooms** these rooms must have minimum dimensions which take the presence of furniture and fittings into account.
- Bath/shower at entrance level (with 3 or more bedrooms only)

   this is a bath or shower at entrance level as EHCS does not indicate whether it is wheelchair accessible.
- 10. **Main entrance illuminated** there is an external light at the entrance door. The presence of street lighting is not taken into account.
- 11. **Main entrance covered** there is a porch or canopy that affords sufficient space for a wheelchair user to shelter.

#### Box 1: Visitable, accessible and adaptable homes (continued)

There are an additional two features that are important for accessibility but for which insufficient information is available from the survey to carry out an assessment of their presence or how easily they might be provided:

- Wheelchair accessible lifts
- No trip steps or changes of level on the ground or entry floor.

A home is considered to be **accessible and adaptable** in this chapter if it has the eleven features listed above irrespective of these additional two. Partial information is provided where possible on them. However, insufficient information on wheelchair accessible lifts has a particular impact in considering the accessibility of flats on upper or basement floors and this is commented on where appropriate in the chapter.

Producing robust estimates for the presence of, and potential to create, each of these features requires making a number of assumptions, set out in **Appendix 4.1**. These assumptions are more likely to overestimate the current accessibility and ease of adaptability of some features such as ground floor WC and lighting and cover to main entrance.

#### **Presence of individual features**

This section looks at the presence in the housing stock of each of the features listed in Box 1 above. Some features were relatively common such as: living room already at ground or entry level (94%); bedroom, or space to provide one, at entry level (83%); and space for turning of wheelchairs in kitchens and living rooms (68%), Table 4.2. Other aspects were less common with only 20% of homes possessing a flush threshold and about 1 in 6 (16%) having level access to the main entrance. The presence of each of these features varies within the stock according to the age, type, size, tenure and the location of homes. Overall, these were more common in newer homes and in larger houses or bungalows.

In addition to the eleven accessibility features in Table 4.2 (that are analysed further in this chapter), accessible homes should also have wheelchair accessible lifts where required and also be free of trip steps or changes of level on the ground or entry floor.

There were around 2.2 million flats situated above ground floor level. However only around 480,000 (21%) of these had a lift of any description and just 33,000 (1.5%) had a lift that was wide enough to accommodate a wheelchair user. High rise flats (in blocks of 6 or more storey) and those in the owner occupied sector were the most likely to have lifts.

Trip steps and changes of level on the ground/entry floor can create difficulties and dangers for all occupants; especially those with limited mobility. Overall about three quarters (74%) of homes were free of these. Not surprisingly purpose built flats were most likely to be free from such steps, particularly high rise flats (87%). Converted flats were least likely to be free of these hazards (66%). Approximately 70% of larger terraced properties and bungalows were likely to meet this requirement and roughly three quarters of all other

housing types. Surprisingly, bungalows, many of which were designed with older people in mind, were no better than other types of houses in this respect. The presence of trip steps was also closely related to the age of the dwelling. Only 60% of pre-1919 homes were free from such hazards compared with 85% of those built since 1990.

Although most of the eleven features in Table 4.2 were more common in newer homes and bungalows, these types of homes do not perform well in respect to all features. A downstairs WC/shower was not present in a high proportion of newer homes which would not be beneficial to occupiers and/or visitors with any mobility problems. The trend of building town houses where much of the ground floor is taken up with an integral garage does not always impact positively on accessibility, Figure 4.2.

Bungalows, many of which were designed with older people in mind, also do not necessarily perform particularly well in terms of having level access and flush thresholds as illustrated in Figure 4.3.

| Feature                                                                            | %<br>present<br>in whole<br>stock | Dwellings most likely to possess feature                                                                                                                    | Dwellings least likely to possess feature                                                                                                                |
|------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Level access to main entrance                                                      | 16                                | Purpose built high rise flats (59%)<br>Purpose low rise flats (34%) Post<br>1990 homes (34%) RSL homes<br>(34%)                                             | Converted flats (10%) Pre-1945<br>homes (9-12%) Owner occupied<br>homes (13%) Private rented<br>dwellings (14%) Bungalows (17%)                          |
| Flush threshold<br>to main entrance                                                | 20                                | Purpose built high rise flats (69%)<br>RSL homes (42%) Post 1990 homes<br>(37%) City and urban areas (27%)                                                  | Terraced houses (13%) Homes built<br>before 1945 (14-17%) Owner<br>occupied homes (15%) Bungalows<br>(18%)                                               |
| Width of internal<br>doorways and<br>circulation space<br>conform to part<br>M     | 25                                | Post 1990 homes (45%) Bungalows<br>(35%) Detached houses (34%) RSL<br>homes (32%)                                                                           | Small terraced houses (16%)<br>Converted flats (17%) Pre-1919<br>homes (17%)                                                                             |
| WC entry level                                                                     | 60                                | Bungalows (100%) Detached<br>homes (83%) Purpose built flats (at<br>least 78%) Rural homes (72%)<br>Homes built after 1990 (78%)                            | Small terraced houses (26%)<br>Homes built before 1965 (52-55%)<br>Homes in Northern Regions (48%)                                                       |
| Shower or bath<br>at entry level**                                                 | 23                                | Homes built before 1919 (35%)<br>Bungalows (100%) Converted and<br>purpose built flats (54-73%) Private<br>rented homes (30%) Homes in rural<br>areas (38%) | Homes built after 1990 (15%)<br>Medium terraced and semi<br>detached houses (14-15%) Homes<br>in Northern Regions (16%) Homes<br>in suburban areas (18%) |
| Living room at<br>ground floor or<br>entrance level, or<br>space to provide<br>one | 94                                | Bungalows and detached homes<br>(99%) Owner occupied homes<br>(98%) Homes built<br>between1919-1964 (97%) Rural<br>areas (88%)                              | Converted flats (73%) Purpose built<br>low rise flats (74%) City and urban<br>areas (88%)                                                                |

## Table 4.2: Types and locations of dwellings that are most or least likely to have accessible features\*

## Table 4.2: Types and locations of dwellings that are most or least likely to have accessible features *(continued)*

| Feature                                                                              | %<br>present<br>in whole<br>stock | Dwellings most likely to possess feature                                                                                               | Dwellings least likely to possess feature                                                                                                               |
|--------------------------------------------------------------------------------------|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bedroom at<br>ground floor or<br>entrance level, or<br>space to provide<br>one       | 83                                | Bungalows (99%) All types of flats<br>(at least 90%) South East regions<br>(89%) Rural areas (88%)                                     | Small terraced homes (56%)                                                                                                                              |
| Space for turning<br>wheelchairs in<br>kitchens, dining<br>areas and living<br>rooms | 68                                | Detached homes (86%) Owner<br>occupied homes (72%)                                                                                     | Purpose built flats (47%) Converted flats (49%) Rented dwellings (56-59%)                                                                               |
| Car parking-size<br>and proximity to<br>dwelling                                     | 54                                | Detached houses (70%) Homes<br>built post 1990 (66%) Rural areas<br>(58%) Owner occupied homes<br>(58%)                                | Converted flats (32%) Homes built<br>pre 1919 (41%) Local authority<br>homes (43%) City and urban homes<br>(43%)                                        |
| Main entrance<br>Illuminated                                                         | 60                                | Purpose built high rise flats (89%)<br>Homes built after 1990 (85%) Rural<br>areas (68%) RSL homes (63%)<br>Owner occupied homes (62%) | Homes built before 1919 (41%)<br>Small terraced houses (41%) Private<br>rented homes (48%) City and urban<br>areas (53%) Local authority homes<br>(54%) |
| Main entrance<br>covered                                                             | 44                                | Purpose built high rise flats (71%)<br>Post 1990 homes (61%) RSL homes<br>(57%) South East regions (51%)                               | Pre-1919 homes (30%) Small<br>terraced houses (33%) Northern<br>regions (37%) Private rented homes<br>(39%)                                             |

Note: for flats, no account has been taken of whether there is a lift in the block

\*For flats, no account has been taken of whether there is a lift in the block

\*\*The percentage present refers to the percentage of dwellings with 3 bedrooms or more. This is because Lifetime Homes does not require an entrance level shower or bath in 1 or 2 bedroomed dwellings





#### Work required to provide each feature

In terms of adaptability, the work required has been classified into a four point scale described in Box 2. The costs indicated are given in broad bands only because the amount of work required varies significantly according to the size and location of the dwelling and the precise nature of work required.

| Box 2: Levels of work required                                              |                            |                                                                                                                                                                                                                                                                                                                                         |  |  |
|-----------------------------------------------------------------------------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Minor                                                                       | Up to approx £1,000        | No structural alterations required.                                                                                                                                                                                                                                                                                                     |  |  |
| Moderate (re-plan)                                                          | Approx £1,000 –<br>£15,000 | Re-arrangement of internal space required that would<br>involve removing internal partitions and/or increasing size<br>of doorways.<br>Where new WCs or showers were being provided, it will<br>also involve associated water supply and drainage works.<br>The precise costs depend on size of dwelling and precise<br>nature of work. |  |  |
| Major (extend)                                                              | Approx over £15,000        | Building extension required.<br>The precise amount will depend on the size of the<br>extension to be built, the scale of work to water and<br>drainage services and ground conditions.                                                                                                                                                  |  |  |
| Not feasible                                                                | n/a                        | It was not physically possible to carry out the necessary work.                                                                                                                                                                                                                                                                         |  |  |
| For further details on the scale of work for each feature see Appendix 4.1. |                            |                                                                                                                                                                                                                                                                                                                                         |  |  |

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Certain features are easier to provide than others in order to make homes more accessible, Figure 4.4. The vast majority of dwellings that lacked a flush threshold or main entrance lighting or cover to the main entrance could be remedied by relatively minor works costing up to about £1,000. Similarly, the proportion of homes with level access to the main entrance could be increased from about 16% to 75% by carrying out the relatively minor work of fitting a simple straight ramp. However, it is not feasible to provide level access to 23% of the stock regardless of the level of work. For each feature, there were variations in terms of the extent of works required and the feasibility of adaptations, according to the age, type, size, tenure and the location of homes.

## Figure 4.4: Proportion of homes that are accessible and adaptable with different levels of work, 2007



It is not possible to assess the feasibility of installing a suitable lift to blocks of flats using information from the survey. At best the installation of a suitable lift would be major work e.g. constructing a new lift tower and installing a new lift. In many cases this would not be feasible either because there is no space for an additional lift tower or because it would be impossible or extremely problematic to install a lift or a larger lift shaft within the existing structure. Consequently, this aspect of the Lifetime Homes standard has not been included in the estimates of overall accessibility and adaptability, although the lack of this feature must be taken into account when considering the accessibility and adaptability of basement and upper flats.

It is also not possible to assess whether and how easily trip steps in the dwelling might be removed because the survey only records the presence of **any** trip steps on the ground/ entry floor. Without knowing the number, size and location of these steps the ease or feasibility of removing them by replacing with a shallow slope can not be determined.

#### Visitable homes

The visitability of a home requires it to have level access and flush threshold to main entrance, internal doorways and circulation that meets part M of the Building Regulations and a WC at ground/entry level (see Box 1). These features are to enable anyone to gain easy access to the home, and move around and have use of a WC on its entrance floor.

Only around 740,000 or 3.4% of existing homes had all four of these features, Figure 4.5. Over a quarter (27%) had none, which means that simply getting through the front door and accessing a WC will pose difficulties and in some cases be impossible for some people with mobility problems.



The proportion of homes that were most or least likely to have all four features or no features varies according to dwelling age, type, tenure and location, Table 4.3. The profile of dwellings with all four visitability features was dominated by newer homes. Almost half (48%) of the homes with all four features were built after 1990 and a similar proportion (46%) were social rented with 32% owned by RSLs.

A large proportion of homes with all four visitability features (47%) were flats. However over half of these visitable flats were on upper or basement floors whose 'visitability' would be compromised if lacking a wheelchair accessible lift (see Box 1).

| Table 4.3: Summary profile of homes: likelihood of having visitability | , |
|------------------------------------------------------------------------|---|
| features, 2007                                                         |   |

| Homes most likely to have all four features<br>(% of the group) | Homes most likely to have no features<br>(% of the group)                   |
|-----------------------------------------------------------------|-----------------------------------------------------------------------------|
| Homes built post 1990 (14%)                                     | One or two bed roomed houses (50%)                                          |
| RSL homes (13%)                                                 | In the owner occupied sector, homes in the lowest 20% of market value (44%) |
| Purpose built flats (12%)                                       | Homes in the northern regions (39%)                                         |
|                                                                 | Homes built before 1945 (33%)                                               |
| Base: sections of the stock selected from all dwellings         |                                                                             |

#### Work required to make homes visitable

This section examines the level of work required to make homes visitable by providing *all four* features (i.e. it does not cover the work that would simply improve the visitability of homes by providing say three of the four features). Most homes would need more than one feature modified/provided to make them visitable so the level of work was the *maximum* needed. For example, if a dwelling lacked level access and this could be remedied by minor work but it also lacked a ground floor at WC level and it was not feasible to provide this, then it would be deemed not feasible to make the home visitable.

It is important to recognise that not all people with mobility problems, including those requiring mobility aids, will require all four features in order for their home to meet their individual needs.

In 2007 around three quarters of a million homes had all four visitability features but a further 2.6 million existing homes (12%) could be made visitable if minor work only were carried out, Figure 4.6. An additional 9.6 million (43%) could comply if more major work involving internal structural alterations were carried out and a further three million homes (14%) could only be made visitable by major works involving extending the dwelling. This leaves 6.2 million homes (28% of the stock) where it was not feasible to make the dwelling visitable.<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> The estimate of 6.2 million homes that could not be made visitable is likely to be an underestimate given that the survey can not take into account the requirement for wheelchair accessible lifts for flats above ground floor.



The level of work required and the overall feasibility of making the stock visitable vary considerably by tenure, type, age, location and, in the owner occupied sector, market value, Table 4.4.

| uwening, area anu i                                                                                                      | Harket G                                | anacteris                                  | 51165, 2007                                  |                                              |                                              |                                                    |
|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|--------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------------|
|                                                                                                                          | percentage of the group:                |                                            |                                              | all                                          |                                              |                                                    |
|                                                                                                                          | none –<br>already<br>visitable          | minor<br>work<br>only                      | replanning                                   | extension/<br>problematic                    | not<br>feasible                              | dwellings<br>(000s)                                |
| <b>tenure</b><br>owner occupied<br>private rented<br>local authority<br>RSL                                              | 2.1<br>2.7<br>5.2<br>12.8               | 13.2<br>8.2<br>7.8<br>7.8                  | 46.9<br>30.0<br>41.1<br>36.6                 | 11.5<br>18.5<br>20.6<br>17.8                 | 26.3<br>40.6<br>25.3<br>25.0                 | 15,560<br>2,738<br>1,987<br>1,904                  |
| <b>type:</b><br>house 1 or 2 bedrooms<br>house 3+ bedrooms<br>bungalow<br>ground floor flat<br>upper floor/basement flat | 0.9<br>1.9<br>5.3<br>11.1<br>8.5        | 3.0<br>12.1<br>24.0<br>15.0<br>7.5         | 23.8<br>53.1<br>52.8<br>25.1<br>18.2         | 19.1<br>9.6<br>0.0<br>24.3<br>35.7           | 53.2<br>23.2<br>17.9<br>24.6<br>30.0         | 3,209<br>13,107<br>2,102<br>1,444<br>2,327         |
| <b>age:</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>1981-90<br>post 1990                                         | 0.8<br>0.7<br>1.4<br>2.8<br>6.8<br>14.2 | 6.1<br>9.6<br>11.3<br>13.6<br>16.4<br>18.5 | 25.0<br>52.9<br>54.2<br>50.2<br>39.8<br>34.7 | 12.6<br>15.8<br>14.1<br>13.7<br>12.9<br>12.9 | 55.4<br>21.1<br>19.0<br>19.7<br>24.2<br>19.7 | 4,766<br>3,864<br>4,345<br>4,806<br>1,878<br>2,531 |
| <b>location:</b><br>city/other urban centres<br>suburban residential<br>areas<br>rural areas<br><b>all stock</b>         | 4.7<br>3.0<br>3.1<br><b>3.4</b>         | 7.3<br>11.8<br>16.1<br><b>11.6</b>         | 24.2<br>47.3<br>53.0<br><b>43.4</b>          | 20.8<br>13.3<br>7.1<br><b>13.7</b>           | 43.1<br>24.6<br>20.7<br><b>279</b>           | 4,805<br>13,126<br>4,257<br><b>22,189</b>          |

## Table 4.4: Level of work required to provide all four visitability features by dwelling, area and market characteristics, 2007

## Table 4.4: Level of work required to provide all four visitability features by dwelling, area and market characteristics, 2007 *(cont)*

|                                                                                 |                                | percentage of the group: |            |                           |                 | all                 |
|---------------------------------------------------------------------------------|--------------------------------|--------------------------|------------|---------------------------|-----------------|---------------------|
|                                                                                 | none –<br>already<br>visitable | minor<br>work<br>only    | replanning | extension/<br>problematic | not<br>feasible | dwellings<br>(000s) |
| owner occupied stock                                                            |                                |                          |            |                           |                 |                     |
| market value:                                                                   |                                |                          |            |                           |                 |                     |
| lowest 20%                                                                      | 1.0                            | 5.3                      | 37.3       | 15.8                      | 40.6            | 3,248               |
| 2nd quintile                                                                    | 1.4                            | 8.4                      | 48.6       | 14.0                      | 27.6            | 3,067               |
| 3rd quintile                                                                    | 2.8                            | 13.1                     | 51.3       | 9.8                       | 23.1            | 3,064               |
| 4th quintile                                                                    | 2.1                            | 17.4                     | 52.7       | 7.7                       | 20.0            | 3,200               |
| highest 20%                                                                     | 3.3                            | 22.4                     | 44.7       | 10.3                      | 19.4            | 2,981               |
| all owner occupied stock                                                        | 2.1                            | 13.2                     | 46.9       | 11.5                      | 26.3            | 15,560              |
| Base: all dwelling (market value characteristics for owner occupied stock only) |                                |                          |            |                           |                 |                     |

Privately rented dwellings present the biggest challenge with 41% of homes in this sector being not feasible to make visitable in 2007, Figure 4.7. Around a quarter of bungalows (24%) could comply if minor works were carried out compared with just 3% of small houses. Some 15% of ground floor flats could be made visitable with minor works only but the equivalent proportion for upper floor flats was much smaller (8%) and this would reduce significantly if the requirement for a wheelchair accessible lift was added. Small houses presented the most difficulty with 53% not being feasible to make visitable – this rose to 69% for the specific category of small terraced houses.



Older dwellings also present a challenge. Only 6% of homes built before 1919 could provide all four features with minor works and over half (55%) were simply not feasible to make visitable, Table 4.4. Although a relatively high proportion of newer homes built since 1990 (18%) could be made compliant with minor works only, one in five (20%) of homes dating from this period were not feasible to make visitable.

Dwellings in city and urban centres were also more problematic than those located elsewhere; largely due to the higher proportion of flats and small houses (particularly terraced ones) in these types of locations. Only 7% could be made visitable with minor work and 43% could not be made visitable even with very large scale works, Table 4.4.

In the owner occupied sector, high value homes were more easily adaptable than lower value ones, mainly because value is strongly related to type and size of dwelling. Just 5% of those in the lowest value band could be made visitable with minor works compared with 22% in the highest value band, Table 4.4. Some 41% of owner occupied homes in the lowest value band were not feasible to make visitable compared with 19% in the highest band.

#### Accessible and adaptable homes

To be accessible and adaptable the home must have all eleven features (which include the four visitability features covered in the previous two sections) as set out in Box 1.

Not all people with mobility problems, including those requiring mobility aids, will require all eleven features in order for their home to meet their individual needs. Around half (51%) of all homes had six or more of these features and only around one in five (19%) had three or less, Figure 4.8. Nevertheless only around 110,000 homes or 0.5% of the existing stock had all eleven features.



Note: proportions include all dwellings with a bath or shower at entrance level although Lifetime Homes only requires this in homes with three or more bedrooms.

Around half (52%) of accessible and adaptable homes were owner occupied and just over a third (37%) were owned by Housing Associations. Some 38% of them were bungalows and 25% were ground floor flats. In addition only about 15% were located in city and other urban centre locations and just 2% of them were medium/long term vacant.<sup>8</sup>

#### Work required to make homes accessible and adaptable

This section focuses on the ease of providing *all eleven* features specified in Box 1. Only around 110,000 (less than 1% of) homes in the existing stock had all eleven accessibility features. If minor works only were carried out, an additional 4% of homes could provide all eleven features, Figure 4.9. Additionally carrying out moderate levels of work involving internal structural alterations and/or work to drains would get about a third of the stock to comply and carrying out all major work, including extensions, could provide all eleven features for two thirds (66%) of the housing stock. It was not feasible to provide all features for around 7.5 million homes (34% of the stock).



The ease of making dwellings accessible and adaptable varies considerably by age, type, size and location of the stock, Table 4.5. Table 4.6 highlights where a relatively high percentage of homes could reach this standard with minor works only and those where there was limited scope for achieving this level of accessibility.

<sup>&</sup>lt;sup>8</sup> The small number cases of accessible and adaptable homes obtained through the random sample of the survey severely limits the level of detail in which they can be analysed as a section of the housing stock.

# Table 4.5: Level of work required to provide all eleven features to make homes accessible and adaptable by dwelling, area and market characteristics, 2007

|                                                                                                                          | percentage of the group:               |                                        |                                              | all                                          |                                              |                                                    |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------|----------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------|----------------------------------------------------|
|                                                                                                                          | none -<br>already<br>accessible        | minor<br>work<br>only                  | replanning                                   | extension/<br>problematic                    | not<br>feasible                              | dwellings<br>(000s)                                |
| <b>tenure</b><br>owner occupied<br>private rented                                                                        | 0.4<br>0.1                             | 3.8<br>2.9                             | 33.9<br>18.0                                 | 31.8<br>27.1                                 | 30.0<br>51.8                                 | 15,560<br>2,738                                    |
| local authority<br>RSL                                                                                                   | 0.4<br>2.2                             | 3.3<br>3.6                             | 19.7<br>20.3                                 | 40.5<br>34.8                                 | 36.0<br>39.1                                 | 1,987<br>1,904                                     |
| <b>type:</b><br>house 1 or 2 bedrooms<br>house 3+ bedrooms<br>bungalow<br>ground floor flat<br>upper floor/basement flat | 0.1<br>0.1<br>2.0<br>1.9<br>1.0        | 0.9<br>1.9<br>13.9<br>7.3<br>5.7       | 10.5<br>36.3<br>40.8<br>18.9<br>13.9         | 30.3<br>34.5<br>23.6<br>43.9<br>23.0         | 58.2<br>27.1<br>19.6<br>28.0<br>56.4         | 3,209<br>13,107<br>2,102<br>1,444<br>2,327         |
| <b>age</b><br>pre-1919<br>1919-44<br>1945-64<br>1965-80<br>1981-90<br>post 1990                                          | 0.1<br>0.0<br>0.3<br>0.2<br>1.9<br>1.8 | 2.0<br>2.5<br>4.4<br>5.3<br>3.4<br>4.1 | 15.0<br>32.3<br>31.4<br>33.3<br>33.8<br>39.2 | 20.0<br>40.0<br>40.2<br>34.2<br>30.3<br>27.9 | 62.9<br>25.2<br>23.7<br>26.9<br>30.6<br>26.9 | 4,766<br>3,864<br>4,345<br>4,806<br>1,878<br>2,531 |
| <b>location</b><br>city/other urban centres<br>suburban residential areas<br>rural areas                                 | 0.3<br>0.5<br>0.8                      | 2.7<br>3.3<br>5.7                      | 17.1<br>31.4<br>37.8                         | 26.1<br>35.1<br>30.5                         | 53.7<br>29.7<br>25.2                         | 4,805<br>13,126<br>4,257                           |
| all stock                                                                                                                | 0.5                                    | 3.7                                    | 29.5                                         | 32.3                                         | 34.0                                         | 22,189                                             |
| owner occupied stock<br>market value:<br>lowest 20%<br>2nd quintile<br>3rd quintile<br>4th quintile<br>highest 20%       | 0.1<br>0.1<br>0.6<br>0.5<br>0.6        | 1.7<br>2.8<br>3.9<br>4.9<br>5.9        | 17.8<br>30.2<br>36.6<br>43.5<br>42.5         | 34.0<br>35.7<br>31.7<br>28.9<br>28.8         | 46.3<br>31.3<br>27.2<br>22.2<br>22.2         | 3,248<br>3,067<br>3,064<br>3,200<br>2,981          |
| all owner occupied stock                                                                                                 | 0.4                                    | 3.8                                    | 33.9                                         | 31.8                                         | 30.0                                         | 15,560                                             |
| Base: all dwelling (market va                                                                                            | lue characterist                       | ics for owne                           | r occupied sto                               | ock only)                                    |                                              |                                                    |

Table 4.6: – Summary profile of homes: key groups of dwellings most and least amenable to being made accessible, 2007

| Quick wins:<br>Homes where a relatively high % could be made<br>accessible with minor works (percentage that<br>could be so) | Limited potential:<br>Homes where over half are not feasible to make<br>accessible (percentage not feasible) |
|------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Bungalows (14%)                                                                                                              | Small terraced house – floor area less than 70m2<br>(77%)                                                    |
| Ground floor flats (7%)                                                                                                      | Built before 1919 (63%)                                                                                      |
|                                                                                                                              | Houses with 1 or 2 bedrooms (58%)                                                                            |
|                                                                                                                              | Flats on upper or basement level (56%*)                                                                      |
|                                                                                                                              | Homes in city and urban centres (54%)                                                                        |

Note: the figures for flat on the upper and basement level takes no account of whether there is a lift. If this feature was added to the eleven then the proportion that is not feasible to adapt would be significantly higher for this particular group of homes.

Rented homes, especially those that were privately rented, were more likely to be not feasible to make accessible than owner occupied homes. This was largely because rented homes tend to be smaller and built/located at higher densities so there is less scope for internal replanning or building extensions. However, the proportion of the stock that could be made accessible by minor works was roughly the same in all tenures, Figure 4.10.





The ease of making homes accessible also varied considerably by dwelling type. Bungalows were most likely to be capable of reaching this level by minor work (14%) and had the smallest proportion that were not feasible adapt (20%), Table 4.5. Over half (58%) of smaller houses were not feasible to adapt and this rose to 77% of small terraced houses. Upper floor and basement level flats were also problematic with a high proportion (56%) not feasible to adapt and this would increase significantly if they were also required to have a lift, especially a wheelchair accessible one.

In terms of dwelling age the oldest stock (pre-1919) was the most problematic to improve in this respect. Just 2% could comply if minor work was undertaken and in 63% of the oldest housing, it was not feasible to provide all eleven items, Table 4.5. Although the newer stock (built after 1990) was more amenable to adaptation, over one in four of these homes (27%) could not be made to comply with all eleven requirements.

Dwellings in city and other urban centres were the most problematic. Just 3% of these could be made accessible with minor works and 54% could not be made to comply with all eleven requirements, Table 4.5.

In the owner occupied sector, high value homes were more easily adaptable than lower value ones; mainly because value was strongly related to type and size of dwelling. Just 2% of those in the lowest value band could be made accessible with minor work only compared with 6% in the highest band, Table 4.5. Similarly, 46% of low value homes were not feasible to make accessible compared with 22% of the highest band.

#### Households living in the most accessible and easily adaptable homes

Although the survey can provide reasonably robust estimates of the number of homes that are or can be made accessible and adaptable it is very difficult to assess their current need. This is because not all those with mobility problems require all of these features (and some may need additional facilities) and because the specific needs of individuals can not be ascertained from information captured by the survey. Instead, this section looks generally at who was occupying homes that were already accessible and adaptable (or could be more readily made so) and considers some broader issues around the constraints that households may face should they wish or need to occupy such homes.

Overall, people with existing mobility problems and older people were more likely to live in a home that was more accessible and adaptable. This suggests that at least some of those with mobility problems (or those worried about developing these as they got older) were selecting or being allocated housing which was more suitable for their needs.

Looking firstly at the 110,000 (0.5% of all) homes that had all eleven features ('already accessible'), the vast majority (80%) were occupied by a household containing either at least one person aged 60 or over or a younger person with a mobility problem, Figure 4.11.



In addition, around half (51%) of homes that had all eleven features were occupied by households in receipt of means tested or disability related benefits. However, by focusing on homes that could be made accessible with minor works only, then 42% of these were occupied by households where everyone was aged under 60 and nobody had a mobility problem.

In comparison the majority (62%) of homes that were not feasible to make accessible were occupied by households where all people were aged under 60 and nobody had a mobility problem.

Of course making homes accessible and adaptable (and visitable) is not solely about meeting specific and current needs of occupants (and their visitors) but also about the wider benefits of increasing the stock of such homes and their availability to improve the responsiveness of housing to such needs as and when they arise. In this wider context the findings from this chapter raise a number of considerations about the existing stock.

Firstly, there is a correlation between the most easily adaptable homes and market value. Larger homes, though generally more easy to adapt, are more expensive. Even where households can afford to move to more suitable accommodation, there is no guarantee of availability in any geographical location. Demand for some dwellings such as bungalows, which are typically more accessible, is generally much higher than for other types of accommodation.

Secondly the chapter has also found some significant variations by type of area for individual accessibility features and for the overall accessibility and adaptability of the housing stock. Many accessibility features are closely related to the type of dwelling, so there are likely to be significant regional and local variations in the numbers of homes meeting each requirement. Flats, for example, perform less well in terms of providing sufficient space for the turning of wheelchairs. London, which has a high density of flats, is likely to perform less well in this respect. Suitable car parking is less likely to be present in locations with widespread and stringent parking restrictions e.g. London, other city centres and also in tourist areas.

Finally there are also challenges in the rented sectors. Rented homes tend to be much smaller than equivalent types of dwelling in the owner occupied sector which reduces the potential to make them more accessible. Almost half (47%) of rented bungalows had a floor area of less than 50m<sup>2</sup> compared with just 7% of bungalows in the owner occupied sector. The private rented sector had the highest proportion of homes (52%) that were not feasible to adapt.

## Appendix 4.1

## Accessibility and adaptibility: Modelling assumptions used in the English House condition Survey

| Criterion                                    | Assumptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Car parking – size and proximity to dwelling | There is adequate street parking or where there is designated parking <b>and</b> it is located on the plot <b>and</b> the slope is <1 in 12 <b>and</b> the front plot is at least 3.3m wide <b>and</b> the front plot is at least 4.8 m deep (this is large enough to accommodate a family car). Lifetime Homes specifies a shallower slope than this (1 in 20) but EHCS only records if the slope of the plot is less than 1 in 12.                                                                                                                                                                                                                                                                                                                              |
|                                              | The assessment of whether present on plot is simply one of whether it could be provided. In many cases where it does not already exist, the plot will not be feasible for adaptation. The only exceptions are cases where it would be feasible if the existing garage was demolished or moved. These are situations where the front plot is at least 3.3.m wide and 4.8m deep and there is an attached or detached garage present but this encroaches on the plot so that there is no private parking on the plot. These are coded as very problematic because they require demolition or re-siting of a garage. Designated parking but not on the plot is coded as problematic because the distance from property is unknown as are dimensions of parking space. |
| Living room on ground<br>floor               | There is already a living room on the ground floor/entry floor to the dwelling or where there is space to easily provide one – this includes those with an additional room on this level that could be used as a living room or where the bedroom is large enough to be split to provide a living area. The minimum room area is taken be 14m <sup>2</sup> to provide a sleeping area of 2m <sup>2</sup> together with a reasonable size living area of 12m <sup>2</sup> . Where a bedroom has sufficient space for a living room, this allows for space to accommodate a single bed, bed side cabinet and space to manoeuvre.                                                                                                                                    |
|                                              | Dwellings with other rooms on the ground/entrance floor that could be used<br>as a living room and cases where there is a bedroom that could be split are<br>coded as requiring minor work. If there is an integral garage that could be<br>converted into a living room, this would require very major work. Similarly, if<br>the dwelling is a house or ground floor flat without space for another room,<br>work required would be to build an extension coded as very major). If the<br>dwelling is a flat above ground floor or a mid-terraced house and there are<br>no other rooms that could be used then work is not feasible.                                                                                                                           |
| Space for bedroom on ground floor            | There is already at least one bedroom on the ground floor/entry floor to the dwelling or where there is space to easily provide one – this includes those with an additional room on this level that could be used as a bedroom or where the living room is large enough to be split to provide a sleeping area.                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|                                              | The minimum room area is taken to be 14m <sup>2</sup> to provide a sleeping area of 2m <sup>2</sup> together with a reasonable size living area of 12m <sup>2</sup> . This allows for bed space large enough to accommodate a single bed, bed side cabinet and room to manoeuvre.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                              | Cases where there is an integral garage that could be converted into a bedroom would require very major work. If the dwelling is a house or ground floor flat without space for another room, work required would be to build an extension coded as very major. If the dwelling is a flat above ground floor or a mid terraced house and there are no other rooms that could be used then work is not feasible.                                                                                                                                                                                                                                                                                                                                                   |
| Criterion                        | Assumptions                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Level access to main<br>entrance | For a dwelling with a private plot, level access is defined as no steps<br>between the gate/pavement and the entrance door for a wheelchair to<br>negotiate. The path also has a gradient of less than 1 in 12. Lifetime Homes<br>specifies a shallower slope than this (1 in 20) but EHCS only records if the<br>slope of the plot is less than 1 in 12.                                                                                                       |
|                                  | Unlike the 2007 survey, the 2006 survey did not record the existence of a shared plot. The assumption has been made that where there are shared facilities and services, a shared plot will exist. Level access is defined as no steps between the pavement and the entrance door for a wheelchair to negotiate. Paths also have a gradient of less than 1 in 12.                                                                                               |
|                                  | Dwellings where there are steps up to the building and a ramp cannot be fitted are classed as not feasible. EHCS surveyors are briefed on how to assess this, but as a check the depth of the front plot and the number of steps is compared to establish whether there is room for a straight ramp with a slope of <1:20. An allowance for a 'landing' of 1.2m is made.                                                                                        |
| Main entrance covered            | Unlike the 2007 survey, the 2006 survey did not record the existence of a shared plot. The assumption has been made that where there are shared facilities and services, a shared plot will exist.<br>For all dwellings with a private or shared plot, a covered entrance refers to an entrance where there is sufficient space for a wheelchair user to shelter (even if the entrance is not wheelchair accessible). This entrance need not be fully enclosed. |
|                                  | Most dwellings should be easy to fit a canopy/porch and are coded as<br>requiring minor work, except where the dwelling fronts onto the street (no<br>front plot) and adaptations are not feasible. Works may also be not feasible<br>where the dwelling is listed or in conservation area, but as there is no data<br>on this it is assumed that they can be rectified with minor work unless they<br>front directly onto the street.                          |
| Main entrance illuminated        | Unlike the 2007 survey, the 2006 survey did not record the existence of a shared plot. The assumption has been made that where there are shared facilities and services, a shared plot will exist.                                                                                                                                                                                                                                                              |
|                                  | For all dwellings with a private or shared plot, an illuminated entrance is one<br>where there is an external light at the entrance door. Dwellings which are<br>not illuminated have no external light at the entrance (even if there is a<br>streetlight nearby).                                                                                                                                                                                             |
|                                  | Most dwellings should be easy to fit a bulkhead light and are coded as<br>requiring minor work. Works may not be feasible where the dwelling is<br>listed or in a conservation area but as there is no data on this it is assumed<br>that they can be rectified with minor work.                                                                                                                                                                                |
| Main entrance flush<br>threshold | Flush threshold refers to a threshold where there is no obstruction greater<br>than 15mm. Unfortunately EHCS just records whether it is 15mm or less<br>rather than the actual height and there is no data on the change in level<br>between outside and inside the dwelling. It is assumed that all dwellings<br>without this can be rectified by replacing the door and frame (classed as<br>minor work).                                                     |

| Criterion                                                                                                                                                                                                                              | Assumptions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Any lifts should be wheelchair accessible                                                                                                                                                                                              | 4 categories of homes coded here:<br>Not applicable – Houses and ground floor flats                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                        | No lift present – Upper/basement floor flats with no lift                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                                                                                                                                                                                                                                        | Lift present but not accessible – Upper floor/basement flats where lift coded as 'average' or 'tight' in terms of space and which are not wide enough to allow wheelchair access                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|                                                                                                                                                                                                                                        | Accessible lift present – Upper floor/basement flats where lift coded as<br>'spacious' in terms of space and can allow wheelchair access.<br>If there is a lift that is not large enough then it is likely that installing a larger<br>lift would mean extensive structural alterations to the lift shaft. This work is<br>considered not feasible on practical and economic grounds. Where there is<br>no existing lift, it is not possible from the data to assess the ease of fitting a<br>lift so we would code all of these not feasible.                                                                                                                                                                                                                                                                                                                                        |
| The width of internal<br>doorways and hallways<br>conforms to Part M                                                                                                                                                                   | EHCS surveyors are briefed to assess this directly and are given a table of widths from part M. Their assessment has been taken on the doors and circulation space serving habitable rooms, kitchen, bathroom and WC. This should be possible to achieve in most dwellings by removing some partitions and/or making door openings wider and this replanning is coded as major work, as it would normally involve inserting RSJ's as at least some internal walls are likely to be load-bearing. However, removal of internal partition walls would contravene fire regulations in buildings with 3 or more floors so it is coded as very problematic (very major works where feasible) for these buildings.                                                                                                                                                                          |
| There should be space for<br>the turning of wheelchairs<br>in kitchens, dining areas<br>and sitting rooms and<br>adequate circulation space                                                                                            | The minimum room dimensions that are allowed for this space given<br>assumed furniture and fittings, are 2.6m in both directions for a living room<br>and 2.2m in both directions for a kitchen. Another complication is kitchen-<br>diners and bed-sitting rooms, and assumed minimum dimensions for the<br>former is 2.6m (same as a living room) and 3.5m for the latter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| for wheelchair users<br>elsewhere                                                                                                                                                                                                      | This should be possible to achieve in most dwellings by removing some<br>partitions and work would be coded as major as it would normally involve<br>inserting RSJ's because at least some internal walls are likely to be load-<br>bearing. However, this may contravene fire regulations in buildings with 3 or<br>more floors so would be coded not feasible in these cases unless the total<br>ground floor area is large enough to rearrange the space without creating<br>'open-plan' stairs. It is assumed that all houses that are at least 4.0m in<br>width and have a total internal floor area of more than 70 m2 could be<br>modified in this way. For smaller houses, these could be extended to<br>provide the additional space unless they are mid-terraced houses or flats<br>that are not located on the ground floor. In such cases work is coded as<br>very major. |
| WC and shower at<br>entrance level<br>For dwellings with 3 or<br>more bedrooms or where                                                                                                                                                | EHCS surveyors record separately whether there is a WC and a shower/<br>bath present at entry floor level. There is no data as to whether either are<br>fully wheelchair accessible. Dwellings with 3 or more bedrooms comply<br>where both are on the entry floor and dwellings with 1 or 2 bedrooms<br>comply if just the WC is located on the entry floor.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| all rooms are located on<br>one floor the WC should<br>be fully accessible (but<br>there is no data to assess<br>this). For other dwellings,<br>the WC should be ADM<br>compliant (this should be<br>the case if built after<br>2000). | Dwellings with other rooms that could be used or partitioned to create this are coded as requiring major work through replanning. Due to small sample sizes, dwellings with integral garages that could me used to accommodate this feature have been combined with the above major works, although in reality are likely to be more extensive and problematic. If the dwelling is a house or ground floor flat without sufficient space for another room, very major work is required to build an extension. If the dwelling is a flat above ground floor or a mid-terraced house that does not already have these, it is assumed that these cannot be provided as it is not really feasible to build an extension in these cases.                                                                                                                                                   |

# Glossary of key definitions and terms 2007

Key definitions and terms are included with entries being grouped under the following headings:

# Homes

- tenure
- vacant dwellings
- dwelling
- age
- size
- type
- Areas
  - type
  - regional areas
  - deprived local areas
  - deprived districts
  - Working Neighbourhood Fund (WNF)

# Households

- household
- Household Reference Person (HRP)
- household groups
- income/equivalised income

# • Conditions

- basic amenities
- decent homes
- cost to make decent
- treatment scale for non-decent homes
- Housing Health and Safety Rating System (HHSRS)
- cost to remedy HHSRS hazards (cost to make safe)
- excess cold (HHSRS Category 1 hazard)
- parking
- damp and mould growth
- serious disrepair
- repair costs
- repair cost measures
- visitability, accessibility and adaptability
- Flush thresholds
- level access

## • Energy Measures and Performance

- heating system
- double glazing
- Energy Performance Certificate (EPC)
- energy efficiency rating
- Energy Efficiency Rating (EER) Bands
- Environmental Impact Rating (EIR)
- energy use (primary)
- energy cost
- carbon dioxide (CO<sub>2</sub>) emissions

# 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 (i.e. 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<sup>2</sup>
- 50 to 69m<sup>2</sup>
- 70 to 89m<sup>2</sup>
- 90 to 109m<sup>2</sup>
- 110m<sup>2</sup> or more.

# Туре

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<sup>2</sup> 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<sup>2</sup> 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.

# Areas

#### Туре

#### 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 e.g. 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 2007 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, which were supported through the Neighbourhood Renewal Fund (NRF) between 2001 and 2008.

The NRF aimed to enable England's most deprived local authorities to improve services, narrowing the gap between deprived areas and the rest of the country.

The districts were receiving an NRF allocation 2006 to 2008 or had received an allocation in earlier years (91 districts in total). From 2008, Working Neighbourhoods Fund replaced NRF.

# Working Neighbourhood Fund (WNF)

This replaced the NRF from April 2008. The WNF is a new dedicated fund to support councils and communities in developing more concentrated, concerted, community-led approaches to getting people in the most deprived areas of England back to work.

# **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 longtern 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 (i.e. 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 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 the threshold amount (£15,460 for 2007).

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 <u>only</u> 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 income

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.

# Conditions

# **Basic Amenities**

Dwellings lack basic amenities where they do not have all of the following:

- kitchen sink;
- bath or shower in a bathroom;
- a wash hand basin;
- hot and cold water to the above;
- inside WC.

# Decent homes

A decent home is one that meets **all** of the following four criteria:

- a) meets the **statutory minimum** standard for housing. From April 2006 the Fitness Standard was replaced by the Housing Health and Safety Rating System (HHSRS).
- 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.

From 2006, the definition of decent homes was updated with the replacement of the Fitness Standard by the Housing Health and Safety Rating System (HHSRS) as the statutory criterion of decency. Estimates using the updated definition of decent homes are not comparable with those based on the original definition. Accordingly any change in the number of decent and non-decent homes will be referenced to 2006 only. Estimates for 1996 to 2006 using the original definition are available in the 2006 EHCS Headline and Annual Reports.

www.communities.gov.uk/publications/housing/ehcsheadline2006

www.communities.gov.uk/publications/corporate/statistics/ehcs2006annualreport

Estimates from the EHCS are based solely on whether a home meets the four stated requirements set out in the updated definition of decent homes (see *A Decent Home: Definition and guidance for implementation*, Communities and Local Government, June 2006) and is an assessment of the property as observed by surveyors and subject to any practical considerations for making the home decent, the wishes of the occupants as to any necessary work being carried out, nor any planned action the owner may have for the property. In not taking into account such factors, the EHCS estimates differ from Social landlord's own statistical returns. These differences have been evaluated and are published on the Communities and Local Government website

http://www.communities.gov.uk/publications/housing/decenthomessocialsector

#### 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 e.g. scaffolding and prelims and also takes into account regional and tenure variations in building prices.

#### 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, e.g. 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 1.1 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.

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 (cost to make safe)

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.

#### 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.

## Parking

Adequate street parking: is generally outside or adjacent to the dwelling. The road should be sufficiently wide to allow easy passage of traffic.

Inadequate street parking: it is difficult to park outside the dwelling. This might be due to the volume of cars competing for space or due to legal restrictions on parking, or the street being too narrow.

## 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 e.g. roof covering, gutters etc. or leaks from internal plumbing e.g. 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<sup>2</sup>.

#### **Repair costs**

*faults:* a fault is any problem which is not of a purely cosmetic nature and either represents a health or safety hazard, or threatens further deterioration to the specific element or any other part of the building.

*urgent repairs:* work which needs to be undertaken to tackle problems presenting a risk of health, safety, security or further significant deterioration in the short term, examples include leaking sinks, broken locks to external doors and cracked socket covers.

**basic repairs:** any urgent repairs plus additional visible work to be carried out in the medium term.

*comprehensive repairs:* includes all the repairs as specified in the above two categories plus any replacements the surveyor has assessed as being needed in the next ten years.

## Repair cost measures

**required expenditure** – total cost per dwelling in pounds that represents the best estimate of what the specified work would actually cost. These costs are influenced by regional variations in prices and assume different project sizes for work to houses in different tenures. In the owner occupied and private rented sector the contract size for work to houses is taken to be one. In the social rented sector, the contract size is taken as five unless the house is not on an estate and therefore assumed to be a street property with a contract size of one. This measure assumes that all work is carried out by contractors who operate to health and safety regulations. The costs do not include any VAT or mark up for profit. These costs should not be used for assessing differences in condition between different tenures or dwelling types as they vary according to dwelling size tenure and location.

**standardised repair costs** – this is an index of disrepair, that expresses costs in pounds per square metre ( $f/m^2$ ) based on prices for the East Midland region (where prices can be regarded as a mid point in the range of regional prices).

Under the standardised repair cost measure it is assumed that all work is undertaken by contractors on a block contract basis. For flats, the size of the contract is assumed to be the whole block and for all houses it is taken as a group of five dwellings, representing costs more closely associated with those which may be incurred by a landlord organising the work on a planned programme basis. By reducing costs to a £/m<sup>2</sup> basis the effect of building size on the amount of disrepair recorded is omitted, otherwise the extent of disrepair measured is substantially driven by the size of the building. Standardised repair costs should not be used as an indication of expenditure required to remedy problems.

## Visitability, accessibility and adaptability

**accessible and adaptable:** – In this report the overall accessibility and adaptability of the home is considered in terms of whether eleven features (listed in Box 1, Chapter 4) are present. These features are based on the lifetime homes aspiration to enable independent living for all by providing a home that is fully accessible and can be adapted to meet mobility needs. In this report, if all eleven features are present then the home is considered 'accessible and adaptable' to facilitate independent living for a disabled occupant.

**visitability:** – this refers to access into the dwelling and use by a disabled visitor. In the report a subset of the accessibility and adaptability features are considered which focus on ensuring any person with a mobility problem can easily visit a property: that is, gain access to the home and move around/make use of a toilet on the entrance floor. Visitability roughly equates with the requirements of part M of the Building Regulations.

## Flush thresholds

Surveyors are asked to record whether a wheelchair can be wheeled into a dwelling with no steps or cills to negotiate. Flats can have a threshold where an appropriate size lift is absent.

#### Level access

There is no more than two steps up or down to the entrance of the dwelling from the street and space to install a ramp.

# **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<sub>2</sub> 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<sub>2</sub> 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: 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

Double glazing creates an insulating barrier between two panes of glass that reduces heat loss through the windows as well as preventing condensation and reducing noise. Double glazing in this report 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 (EER) and bands
- environmental impact rating (EIR) and bands
- primary energy use (kWh/m<sup>2</sup> per year)
- energy cost (£ per year), but unlike the EPC these are based on 2005 constant prices
- CO<sub>2</sub> (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) lower cost measures (less than £500):
  - cavity wall insulation installation where none present
  - loft insulation install/top up existing insulation less than 150mm to 250mm
  - hot water cylinder insulation to a level matching a 160mm jacket installation where the current level is less than 25mm of spray foam or less than a 100mm jacket.

Draught proofing single glazed windows and the installation of low energy lights are also included as low cost EPC recommendations but the EHCS report is not able to report on these two improvement measures due to insufficient information.

- b) 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
  - central heating controls for boiler driven systems upgrade typically to a stage where a room thermostat, a central programmer and thermostatic radiator valves have been installed
  - hot water cylinder thermostat where a storage cylinder is in use but no thermostat exists.

*improved performance:* the improved performance of the housing stock through the installation of EPC cost effective measures is reported on in Chapter 2.

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<sup>2</sup> 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 (i.e. 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 (i.e. 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<sup>2</sup> 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 EER 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<sup>2</sup> 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<sub>2</sub>) 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 are not adjusted for floor area and represent emissions from the whole dwelling.  $CO_2$  emissions for each dwelling are based on a standard occupancy and a standard heating regime.

# Further Information and Contacts

If you would like further information about the EHCS please contact us at:

EHCS Project Management Communities and Local Government Eland House Bressenden Place London SW1E 5DU

Tel 020 7944 3526

The telephone system is due to updated in the Autumn, the new number is listed below

0303 - 4441112

e-mail: ehcs@communities.gsi.gov.uk

# Reports

The 2007 and all recent reports from the survey are available from the Department's website. They, along with other materials, can be accessed from: www.communities.gov.uk/housing/housingresearch/housingsurveys/

# Tables

A set of standard tables providing selected results since 2001 to 2007 are available on the survey's website

www.communities.gov.uk/housing/housingresearch/housingsurveys/englishhousecondition/ehcsdatasupporting/

Summary statistics tables are available from 2006 onwards using the updated definition of the decent homes standard.

# 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

encs@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 provides a service by which nongovernment users can purchase customised analysis of EHCS data. For further details, please contact:

Kevin White via e-mail: whitekj@bre.co.uk Tel: 01923 664136 This report provides a detailed account of living conditions in England in 2007.

The report covers a number of key policy areas related to housing conditions and the energy performance of the housing stock.

