Barnes, M., Cullinane, C., Scott, S. & Silvester, S. (2013). People living in bad housing: Numbers and health impacts. UK: Shelter.

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People living in bad housing – numbers and health impacts

Date: August 2013
Prepared for: Shelter
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Executive Summary

This study uses new evidence from two large-scale representative surveys to explore the number of people living in bad housing and the link between bad housing and health. It begins with a short review of previous research in this area.

The impact of housing on health: A review of the literature

- Housing is one of many personal, social and environmental impacts on health and health inequalities. The complex interaction of these factors means that it can be difficult to identify the specific impact of housing.
- Studies have shown impacts on physical health. Poor conditions such as overcrowding, damp, indoor pollutants and cold have all been shown to be associated with physical illnesses including eczema, hypothermia and heart disease. Respiratory health has been shown to be particularly affected in both adults and children.
- Physical features of housing can also impact on mental health as families try to cope with the stress of living in cold, damp conditions.
- It is not just the physical aspect of housing but also the security it brings – or lack of it - which can have an impact. Children in families who have to move frequently are at particular risk of poor outcomes. Studies highlighting the experience of families in temporary accommodation report a range of health problems such as depression, eczema and asthma.
- Although there is little specific evidence on health and private renting, there is strong evidence on the health impacts of bad housing, particularly on children. The fact that bad housing conditions remain so prevalent in the private rental sector is therefore a legitimate cause for concern.

The number of people living in bad housing: Evidence from the English Housing Survey

The English Housing Survey (EHS) is commissioned by the Department for Communities and Local Government (DCLG) and explores the quality of housing in England.

The key findings from this analysis are:

- Around three in ten people live in bad housing (3.6 million children, 9.2 million working age adults and 2 million pensioners).
- Bad housing is more common among those in private rented properties. Four in ten (3.3 million) private rented tenants live in bad housing.
- Over 975,000 children living in social rented housing are living in bad housing. Approximately 845,000 children living in private rented housing are living in bad housing. And over 1.7 million children living in owner occupied housing are living in bad housing.
- Overcrowding is more likely to affect those in social rented properties while living in non-decent housing is more common among those in the private rented sector.
- Children are most likely to live in overcrowded housing compared to working age adults and pensioners. Overcrowding is also more common among those living in London.

The link between bad housing and health: Evidence from the Health Survey for England

The Health Survey for England (HSE) is an annual survey that monitors the health of the nation. The NHS and the Department of Health use this series to track progress towards national health targets and develop, monitor and evaluate health policy.

The key findings from this analysis are:

- Children living in bad housing are disproportionately more likely to suffer from poorer general health, poorer respiratory health and asthma – with children from private rented housing more likely to have poorer general health and wheezing problems.
- A similar picture emerges for working-age adults, as those living in bad housing are disproportionately at greater risk of poorer general health, low mental wellbeing and respiratory problems including asthma and breathlessness.
- The association between living in bad housing and having health problems is particularly acute among those above retirement age.
- It is noticeable that there is less distinction between the health of people living in good and bad housing in the social rented sector. This is likely to be because of a higher concentration of more disadvantaged households in that sector, resulting in a wider range of factors that can impact on health irrespective of whether you live in bad housing or not.

1 Objectives and methodology

In 2006, NatCen carried out a piece of research for Shelter assessing the numbers of children living in bad housing in Britain. The findings from this work were published in a Shelter report called 'Against the Odds'. This new report provides updated figures on the topic of bad housing. This cannot be a direct update, as the Families and Children Study (FACS), which was the source for the 2006 work, has been discontinued. Instead, new data sources are used to explore:

- The numbers of people living in bad housing, using the English Housing Survey; and
- The health (both mental and physical) of people living in bad housing, using the Health Survey for England

The methodology used in this report is a literature review of existing research into the impact of housing quality on health outcomes, and new secondary analysis of survey data to explore the mental and physical health of those living in bad housing.
The literature review explores the impacts of living in bad housing (defined for the literature review as a range of issues from poor conditions and overcrowding – see Section 2 for details) on physical and mental health, and wellbeing. This has a particular focus on the impacts of people living in private rented accommodation and addresses the following questions:

- How does living in bad housing impact on health?
- What are the health impacts on children?
- Are impacts affected by differences in housing tenure?
- What is specifically known about bad housing in the private rented sector?

The literature review is supplemented by secondary analysis of data from two large-scale household surveys: the English Housing Survey and the Health Survey for England. The English Housing Survey (EHS) is commissioned by the Department for Communities and Local Government (DCLG) and explores the quality of housing in England. The EHS is used to explore the following research questions:

- What proportion (and numbers) of people (and families) live in bad housing?
- How does this differ across life stage, tenure and region?

For this part of the work, a narrower definition of bad housing was used (see box below).

The Health Survey for England (HSE) is an annual survey that monitors the health of the nation. The NHS and the Department of Health use this series to track progress towards national health targets and develop, monitor and evaluate health policy. The HSE is used to answer the following research questions:

- Does the health of people who live in bad housing differ from those who do not?
- Does the health of people who live in bad housing vary by tenure?

The main findings are presented in the body of the report. The full analysis tables, which include estimates for individuals and families, can be found in the appendices. It is important to note that the data analysis presents simple associations between living in bad housing and health. It does not take into account other factors that could influence these associations, nor does it provide evidence of causation or even

direction of causation. For example, living in bad housing could impact on people's health as damp conditions could trigger respiratory illnesses, but likewise people with ill health may be more likely to live in bad housing if they cannot work due to their illness and therefore are unable to afford reasonable housing. Furthermore, the findings in this report cannot be directly compared to the findings in the aforementioned 'Against the odds' report. This is because the reports use different definitions of bad housing, and different measures of health, as a result of using two different survey datasets.

Definitions of bad housing

Secondary data analysis

i) Analysis using the *English Housing Survey* defined people to be living in bad housing if:

- They were overcrowded against the bedroom standard, or
- Their housing failed to meet the Decent Homes Standard

The basic principles of the Decent Homes Standard are:

- It must meet the current statutory minimum standard for housing (see 'Health and Safety Hazards', below)

  Health and Safety Hazards: the Housing Health and Safety Rating System (HHSRS) is a system designed to show whether dwellings pose a risk to the health and safety of their occupants. It focuses upon threats to health and safety rather than degrees of comfort and convenience.
- It must be in a reasonable state of repair
- It must have reasonably modern facilities and services
- It provides a reasonable degree of thermal comfort (effective insulation and efficient heating)

ii) Analysis using the *Health Survey for England* focused on the link between living in bad housing and health, and defined people to be living in bad housing if:

- They thought their accommodation had 'condensation' and 'mould or fungus'

Literature review

For the purposes of the literature review, the definition of bad housing was expanded to include neighbourhood factors such as lack of access to amenities, green space or places to play, or the presence of environmental pollution. Social and psychological factors such as security of tenure, and levels of community cohesion and safety were also considered.

2 The impact of living in bad housing on health: a review of the literature

Summary

- **Housing is one of many personal, social and environmental impacts on health and health inequalities. The complex interaction of these factors means that it can be difficult to identify the specific impact of housing.**
- **Studies have regularly shown impacts on physical health. Poor conditions such as overcrowding, damp, indoor pollutants (such as excess particulates from cooking or smoking) and cold have all been shown to be associated with physical illnesses including eczema, hypothermia and heart disease. Respiratory health has been shown to be particularly affected in both adults and children.**
- **Physical features of housing can also impact on mental health as families try to cope with the stress of living in cold, damp conditions.**
- **Children in families who have to move frequently are at particular risk of poor outcomes. Studies highlighting the experience of families in temporary accommodation report a range of health problems such as depression, eczema and asthma.**
- **Although there is little specific evidence on health and private renting, there is strong evidence on the health impacts of living in bad housing, particularly on children. The fact that bad housing conditions remain so prevalent in the private rental sector is therefore a legitimate cause for concern.**

2.1 Introduction

In this section we provide an overview of the literature on the impacts of living in bad housing on physical and mental health and wellbeing. Our literature review addresses the following questions:

- How does living in bad housing impact on health?
- What are the health impacts on children?
- Are impacts affected by differences in housing tenure?
- What is specifically known about bad housing in the private rented sector?

Definition of terms

Any definition of bad housing needs to encompass a range of factors. The obvious ones are physical conditions: housing may be deemed to be bad if it is damp, infested, cold, or in a bad state of repair. Housing may also be bad if it is unable to adequately accommodate the number of people inhabiting it i.e. if they are experiencing overcrowding. The environment in which the housing is located is also important. Relevant neighbourhood factors include access to amenities, green-space, places to play and environmental pollution. There are also social/psychological factors which contribute to housing being experienced as good or bad. Security of tenure, the status people attach to housing and the levels of community safety and cohesion in an area are all important features.

The United Nations (1991) recognise the basic human right to housing as the right not just to basic shelter, but to 'adequate housing.' They define adequacy in terms of legal security of tenure; availability of services, materials, facilities, and infrastructure; affordability; habitability; accessibility; location and cultural adequacy.

Just as housing is not just concerned with shelter, health is not just about the absence of tangible illness. Housing can and does have an impact on peoples' physical health, but it also impacts directly and indirectly on mental health and wellbeing.

In this brief overview of the literature we first consider the direct and indirect impacts of housing on health and wellbeing, before focusing more specifically on what is known about living in bad housing in the private rented sector and its effects on particular groups.

2.2 The impact of living in bad housing on health

The relationship between housing conditions and health has been of policy interest since 1842 when Chadwick noted the low life expectancy of cellar dwellers. The 1998 Acheson Report identified housing and environment as priority areas for reducing health inequalities, concerns echoed a decade later by Marmot in 2010.

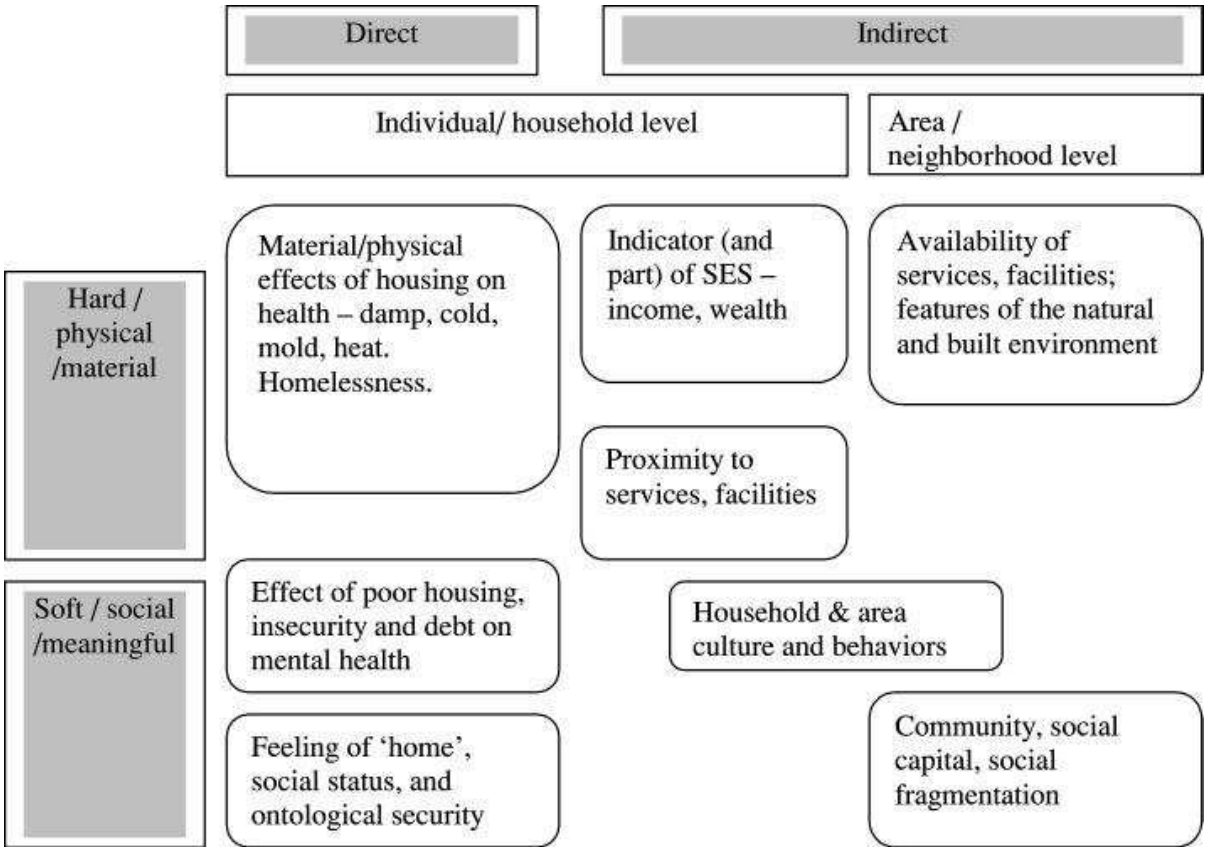
There is a wide range of personal, social and environmental factors which influence health and contribute to health inequalities (Marmot, 2010). These are frequently interrelated: for example, poverty often goes hand in hand with other health threats such as living in a poor neighbourhood and being out of work. It can therefore be surprisingly difficult to isolate the impacts of any one variable (in this case, bad housing) on health outcomes (Hunt, 1997). Nevertheless, as Marsh et al (2000) point out, given the large proportion of time spent within the home, housing is both a key environmental influence upon health and a key health resource.

There is evidence that certain types of household are more likely than others to be living in bad housing and that issues such as poverty, family size and ethnicity interact with housing options. In particular lone parent families, large families (with three or more dependent children) and BME families are more likely to experience bad housing (Barnes et al, 2006). BME households tend to live in more overcrowded conditions, and overcrowding is most severe among Pakistani, Bangladeshi and black African households. These three groups also have the highest numbers of children on average. Overcrowding may also be related to multi-generational living arrangements, the shortage of large properties in the social sector, clustering in areas where overcrowding is particularly severe (such as London), and low incomes. (HC/CIH, 2008, p. 8)

In her 2004 review of the effects of housing on health, Shaw differentiates between direct and indirect impacts. The direct or 'hard' ways in which housing can affect health involve the material conditions of housing, and at the extreme, the impact of homelessness. But housing also impacts via indirect or 'soft' factors: the sense of security, status and belonging associated with a person's home that contributes to their mental health and wellbeing.

Shaw's model is reproduced below:

Figure 2.1 Direct and indirect (hard and soft) ways in which housing can affect health



From Shaw (2004: 398)

Direct impacts on health

As Shaw points out, the evidence base concerning the direct effect of housing on health is not as substantial as might be expected. Studies linking housing to specific health outcomes tend to be small-scale, often reporting small effect sizes and, as Pevalin et al. (2008) note:

> *'Identifying the independent effect of poor housing on health remains problematic because of the complexity of potential causal pathways and confounding factors, which include the degree of individual and neighbourhood deprivation, the presence of multiple domestic hazards, and the amount of time spent in the home.'(2008:680).*

However, the cumulative evidence is strong and consistent, with many studies (particularly from the 1990's) showing that a person's current housing conditions can have significant impacts on their health (e.g. Arblaster & Hawtin, 1993; Hunt, 1997; Ineichen, 1993; Leather et al., 1994; Lowry, 1991; Smith, 1989; Universities of Sussex & Westminster, 1996; Aylin et al, 2001; Rudge and Nicol, 2000).

Poor conditions such as: overcrowding; damp/mould; indoor pollutants/infestation; cold/low temperature have all been shown to be associated with physical illnesses including respiratory disease, asthma, eczema, hypothermia and heart disease. Respiratory health has been shown to be particularly affected. The prevalence and exacerbation of asthma, for example, is associated with both indoor and outdoor air quality, the presence of dust mites or cockroaches, excess particulates from cooking or smoking, dampness and mould, and community violence (Wright, Mitchell, & Visness, 2004). Peat et al. (1998) found that children living in damp homes were between 1.5

and 3.5 times at greater risk of symptoms of cough and wheezing than children in non-damp homes.

Cold homes are also a health risk. Poorly constructed and older housing is generally difficult and expensive to heat, which can have health consequences, particularly during the colder months (Wilkinson et al., 2001). The Royal Commission on Environmental Pollution (2007) concluded that cold was the main factor underlying the higher annual death rate between December and March, with vulnerable groups such as older people and young children at particular risk (Aylin et al, 2001).

Houses in a poor state of repair also present a higher risk of domestic injury. Injuries and deaths due to house fires specifically have been shown to have a steep social gradient with the most disadvantaged groups being more likely to come to harm. As Shaw points out, *much of this is likely to be explained by the type, quality and condition of the housing in which people can afford to live*. (2004:406).

Physical features of housing can also impact on mental health. Macintyre et al (2003) found that coping with damp, problems with keeping the house warm, noise and poor state of repair, were associated with higher levels of anxiety and depression. Studies have suggested that features of housing design which affect the level of social contact and support people enjoy also influence mental health (Halpern, 1995; Weich et al, 2002).

Housing can have direct but softer impacts on health in terms of how people think about their home. A home provides more than physical shelter: it can confer a sense of safety, security and control (Dupuis, 1998). Where this sense is compromised through living in bad housing or insecurity of tenure, there can be direct effects on mental health (Dunn, 2002; Blackman et al, 2001).

Most of the studies cited above have explored the links between current housing conditions and current health. Some have taken a longer term perspective, using longitudinal data to explore the links between living in bad housing during childhood and later health impacts. These show that bad housing conditions in early life can affect health in adulthood. Dedman et al (2001) found that, after controlling for socio-economic status, housing conditions during childhood may contribute to adult health status. For example, overcrowding in early childhood has been associated with short stature in adulthood (Kuh & Wadsworth, 1989; Montgomery et al.,1996). Overcrowding combined with other poor conditions in childhood (such as lack of hot water and other amenities) has been linked to later respiratory problems (Britten et al, 1987; Mann et al.,1992).

Barnes et al (2010) undertook the only British study which has tracked the outcomes of children living in bad housing over time. Using data from the Families and Children Survey (FACS) between 2001 and 2005, they show that the longer children live in bad housing the more vulnerable they are to a range of poor outcomes. Children experiencing persistent bad housing (i.e. for three or more years out of five) often had worse outcomes than those children who merely experienced housing problems on a temporary basis (i.e. for one or two years). This was the case for all three of the housing problems considered (overcrowding, accommodation in poor state of repair and inadequately heated) and the relationships persisted after controlling for other factors such as income poverty. This longitudinal evidence also indicates that the problem of bad housing is likely to be more widespread than official point in time estimates would suggest. For example, while one in seven children were living in overcrowded homes in 2004, as many as one in four children had suffered from overcrowding on at least one occasion during the period 2001 to 2005.

In recent years there has been a growing interest in the cumulative effects of socio-economic circumstances over the life-course. This is based on an understanding that an individual's health outcomes are affected not just by what happens in their childhood but on the conditions that they experience throughout life (Power and Hertzman, 1997; Kuh and Ben-Schlomo, 1997). Marsh et al (2000) used National Child Development Study (NCDS) data to explore the cohort's experience of housing deprivation from childhood to age 33.[1] This found that whilst at age 7, 51 per cent of the cohort suffered at least one housing deprivation. This fell to 20 per cent by age 23, but rose again to 32 per cent at age 33 (when most cohort members had formed their own families). 22 per cent of the cohort had never suffered any housing deprivation, whilst 1.4 per cent were experiencing some form of housing deprivation at every life stage. Marsh et al's analysis indicated that housing deprivation was associated with poor health outcomes, independently of other variables, with multiple housing deprivation leading to a 25 per cent (on average) greater risk of disability or severe ill health across the life course. They concluded that the probability of ill health increased with both greater and more sustained experience of housing deprivation.

Indirect impacts on health

Shaw (2004) argues that there are indirect factors related to housing which have an impact on health, such as the neighbourhood and environment in which the housing is located, and the culture, reputation and social capital associated with housing. Studies have shown that neighbourhood characteristics impact on health (Pickett and Pearl, 2001; Macintyre and Ellaway, 2003), including the risk of injury to children (Haynes et al, 2003). The level of social cohesion in an area can affect health (Kawachi and Berkman, 2000) and neighbourhoods also influence people's health behaviour by enabling/limiting access to healthy behaviour (e.g. places to exercise) or through neighbourhood norms (e.g. smoking).

2.3 Living in bad housing and children's health and development

Data from the 2005 Families and Children Survey (FACS) suggested that one in five children (2.3 million children) were living in 'bad housing' in Britain. Bad housing was defined as living in accommodation that is temporary, overcrowded or unfit. Overcrowding was the most prevalent of the adverse housing conditions with 14 per cent affected. Eight per cent of children lived in unfit accommodation, and one per cent had lived in temporary accommodation in the previous year.

Children living in bad housing were more likely to have poor heath, with children more likely to have respiratory problems if they lived in overcrowded or unfit dwellings. One in twenty children (five per cent) who lived in bad housing and one in fifteen children (seven per cent) who lived in acutely bad housing suffered from poor health, compared to three per cent of children who did not live in bad housing. Children who lived in acutely bad housing were over twice as likely to have visited A&E more than once in the last year compared to children who did not live in bad housing. In addition mothers were more likely to have clinical depression if they lived in bad housing. Ten per cent of mothers who lived in acutely bad housing suffered from clinical depression (Barnes et al, 2006).

Housing quality: A review by Levanthal and Newman (2010) focuses on the impact of housing on children's health and development. They point out that most of the

[1] The NCDS is based on all those born in Great Britain between 3 and 9 March 1958. Data have been collected on this cohort at age 7, 11, 16, 23, 33.

evidence linking housing quality and children's health and wellbeing comes largely from non-experimental studies of non-representative samples of low-income families (e.g., Evans, 2004). There is however, a vast literature on environmental exposures in the home and children's health. An extensive body of research shows an association between children's asthma and poor air quality (e.g., smoke) and exposure to allergens (Wu & Takaro, 2007). Related research finds associations between the presence of dampness and mould and poor respiratory health in children including asthma (Fisk, Lei-Gomez, & Mendell, 2007).

A number of studies explore associations between poor quality housing and childhood injuries (Evans and English, 2002; Krieger and Higgins, 2002), although several are more concerned with neighbourhood characteristics rather than the quality of the homes themselves (O'Campo et al 2000; Shenassa et al, 2004). A US study of hospital discharges for children under six years of age over a 10-year period found that older housing was associated with more burns and falls (Shenassa, et al,2004). However, other studies fail to find an association between housing quality and children's injury (Vaughan, et al 2004), and a review by Lyons et al (2007) concludes that the evidence is unclear.

There is some research suggesting that housing quality may indirectly influence children's development. Bartlett (1998) reported increased stress and family conflict and fewer opportunities for stimulating and supportive family interactions. Sandel and Wright (2007) argue that the psychological stress associated with poor housing is likely to contribute to its association with adverse physical health outcomes, such as asthma.

However, as Leventhal and Newman observe, '*despite the sizable number of studies that find an association between housing quality and child development, of note is the striking number of studies that find no such association'* (e.g., Murray et al., 2007; Tavernier et al., 2006; Vaughan et al., 2004).

Overcrowding: Much of the research on overcrowding focuses on adults rather than children (Evans, 2003; Newman, 2008) and as Leventhal and Newman point out, there is surprisingly little research on the links between overcrowding and children's wellbeing.

A number of studies find a relationship between overcrowding and children's poor physical health due to infection. Overcrowded living conditions are associated with children's respiratory problems (Baker et al., 1998; Mann, Wadsworth & Colley, 1992) and overcrowding during childhood is also associated with gastrointestinal problems in both the short and long term (Galpin, Walker & Dubiel,1992; McCallion et al., 1996).

Studies have found associations between overcrowding and children's schooling outcomes. A French study observed a link between overcrowded housing and repeating a grade in elementary and middle school (Goux & Maurin, 2005). Maxwell (1996) found that pre-school children in the most crowded living conditions had the most behavioural problems as rated by their teachers. A longitudinal study by Conley (2001) found that crowded living conditions during childhood were associated with lower levels of completed schooling by age 25. Evans (2001) found that parents in overcrowded homes were less responsive and harsher than parents in less crowded housing conditions.
A 2005 report by Shelter, based on responses from 505 overcrowded families, illustrates the day-to-day impact on children and families of living in overcrowded conditions. Almost all overcrowded families said they were forced to adopt uncomfortable or irregular sleeping arrangements, with almost three-quarters (74 per cent) having children sharing a bedroom with a parent or parents. Families reported that overcrowding harmed family relationships, noting a lack of privacy and overcrowding was a cause of fighting and arguing among their children. In respect of

health, the families in Shelter's study particularly highlighted depression, anxiety or stress as result of cramped living conditions. Three-quarters of severely overcrowded families also strongly agreed that their children's health was affected by their living conditions. For many families, overcrowding was exacerbated by the lack of outdoor space and places for children to play.

***Frequent moves and temporary homes*:** Moving house can be positive for health, if families are moving from bad housing or neighbourhoods to somewhere better (Pevalin, 2008). However, frequent moves associated with insecure housing, can be detrimental to children's health and development. Levanthal and Newman reported that moving has short-term negative associations with school achievement and functioning among children and adolescents (Pribesh and Downey, 1999; Simpson and Fowler, 1994; Wood et al.,1993). Several studies find that moving is associated with lower educational attainment by late adolescence (Astone and McLanahan, 1994; Hagan et al., 1996) although this can depend on the quality of the move (Hango, 2006). Moving has adverse associations with children's and adolescents' behavioural and adjustment problems (Adam and Chase-Lansdale, 2002; Hendershott, 1989) and there is evidence that residential mobility has a negative association with both peer and sibling relations (Haynie et al, 2006; Stoneman et al., 1999). Parental support has been shown to mitigate the negative effects of moving (Hendershott, 1989), whereas lack of support may exacerbate the difficulties (Hagan et al., 1996).

Across studies, there is some indication that the negative impacts increase with the frequency of moves and that frequent movers are more likely to be victims of violence, vandalism or burglary, less likely to be registered with a GP, and children do less well at school (Cole et al, 2005).

Life in temporary accommodation has been shown to have detrimental effects on families and children. A report by Shelter (2005) based on a survey of 417 homeless families highlights the stress, insecurity, inconvenience and expense of living in temporary accommodation; which take their toll on people's health and wellbeing. Most households in their survey (78 per cent) reported a specific health problem, such as depression, eczema or asthma. Almost half (49 per cent) of households said that their health had suffered due to living in temporary accommodation. More than half (56 per cent) said they were suffering from depression. The survey results show that the longer respondents have been living in temporary accommodation, the greater their health problems. The survey found that living in temporary accommodation resulted in more frequent use of health services. About two fifths (38 per cent) of people surveyed reported more frequent visits to their GP or hospital since becoming homeless. Those who had been living in temporary accommodation for more than a year reported more health problems and greater use of health services.

Neighbourhood and environment: In recent years, there has been an increased interest in the health impacts of access to green-spaces such as parks and playgrounds, and recreational facilities. Evidence shows that children who have better access to such places are more likely to be physically active, and less likely to be overweight, compared to those living in neighbourhoods with reduced access to such facilities (Gordon-Larsen et al,2006). Children and young people's perceptions of their neighbourhood are also associated with levels of activity (Hume et al., 2005). The perceptions of parents toward the neighbourhood are also an important determinant of levels of activity. Where parents perceived the neighbourhood to be safe for walking and cycling, children were more likely to undertake these activities (Timperio et al., 2004).

2.4 The impact of tenure on health

Housing tenure has been found by a number of studies to be related to health outcomes. The primary distinction that has been made in research is between renters and owner occupiers. Ghodsian and Fogelman (1988) used NCDS data to look at the impact of housing and circumstances on a range of outcomes, including health. They found that self-rated health at age 23 was related to housing tenure, with those who had lived in owner occupied homes throughout their lives more likely to rate their health excellent/good than others were. These differences between tenure groups were similar to those found between social class groups.

Studies have also found associations between tenure and mortality, with renters dying earlier than owners. Filakti and Fox (1995) used census data to show that the mortality gap between those in social housing and owner occupiers widened between the early 1970's and the 1980's. In the early 70's, the chances of dying before the age of 65 were 35 per cent higher for men in social housing compared to owners, widening to 62 per cent in the 80's. Although death rates had declined in all groups by the time of the 1991 census, the falls were greatest among owner occupiers (Harding et al., 1997).

These differences can partly be explained by the differences in wealth between renters and owners. There is extremely strong evidence that health inequalities are linked to differences in social class and income (Marmot, 2010). Housing tenure is often used as a proxy indicator of wealth, and research has shown that greater housing wealth in Britain is clearly and incrementally related to higher life expectancy (Shaw et al, 1999). However, housing tenure has been shown to have an effect on health independently of social class. Gould and Jones (1996) show that, within each social class group, housing tenure is associated with self- reported illness, and psychosocial problems have also been shown to be more prevalent among renters than owner occupiers (Lewis and Booth, 1992).

Shaw (2004) suggests that morbidity and mortality differences are likely to be due in part to 'residualisation' i.e. the decline in the availability of social housing means that those who are housed in it are the most vulnerable and sick. Pevalin et al (2008) highlight the change in policy emphasis from social housing to owner occupation which has reduced the availability of decent social housing. They point out that:

> '*Changes in the size and composition of the social housing sector have created socially excluded estates, characterised by poverty, poor infrastructure and substandard housing. This can pose problems for vulnerable groups—particularly the elderly, the very young and those with chronic long-term health problems—who are especially at risk due to the lengthy periods that they spend indoors'*.(2008:681)

There is evidence which suggests that the different meanings people attach to tenure types, in terms of their status and satisfaction, have an impact on health and wellbeing. Macintyre et al (2000) conducted a study in Scotland which explored this with people in owner occupied and social rented homes. Owners were more likely to be male, married/cohabiting, slightly younger, with higher incomes, and more likely to be in paid employment and non-manual jobs. They were also more likely to report mastery and autonomy—"I can do what I want when I want with my own home"—as well as having higher self-esteem, have greater overall life satisfaction, and be more likely to be satisfied with their homes. The general health of owners was better: they reported less limiting longstanding illness, lower depression and anxiety, and fewer symptoms in the past month. The authors noted that '*tenure was still a significant predictor of measures in four health domains after controlling for social class and income, suggesting that it is not solely associated with health because it is a marker for these other, underlying, material assets'* (Macintyre et al, 2001;330)

A later study by the same team (Macintyre et al 2003) explored the aspects of peoples' homes and area environments which might affect their health. They found that those in social rented dwellings were more likely than owner occupiers to be exposed to health damaging features of the environment such as damp, noise, crime and vandalism, and less likely to have access to health promoting features of the environment such as gardens and local amenities. The researchers found that when these environmental variables were taken into account, the health differences between tenure types substantially reduced and concluded that measures to improve the quality of housing and the local environment can reduce health inequalities.

A recent Australian study by Baker et al (2013) looked at the mental health effects of housing tenure. They found that, while mental health varies significantly between tenure types, once tenure population differences are accounted for there is little evidence of an intrinsic relationship between tenure and mental health.

As well as tenure having an impact on health, there is evidence that people's health affects both the tenure type and the quality of housing they occupy. Easterlow et al (2000) found that people with health problems are disproportionately more likely to occupy the least health-promoting sectors of the housing stock which may exacerbate their health problems. People with health problems are more likely to be excluded from owner occupation and less likely to be able to move. Ruel et al (2010) similarly found in the US that while health was not the main reason residents gave for entering public housing, the majority of public housing residents entered public housing already ill. Substandard housing conditions, long tenure in public housing, and having had a worse living situation prior to public housing were not associated with an increased risk of a health condition diagnosed after entry into public housing. Ruel et al suggest that public housing may have provided a safety net for the very unhealthy poor.

There are a number of studies using longitudinal data which find that growing up in an owned rather than a rented home has a positive effect on a wide range of children's outcomes (e.g., Aaronson, 2000; Conley, 2001; Green & White, 1997; Boyle, 2002; Haurin et al 2000, 2002). Outcomes include better health (Fogelman et al., 1989), lower levels of problem behaviour (Boyle, 2002), and better educational achievement (Haurin et al., 2002; Conley, 2001; Aaronson, 2000).

However, more recent analyses have strongly questioned the validity of the 'homeownership effect' which have concluded that there is little evidence of an independent homeownership effect on health after accounting for other key variables such as income and family stability. (Galster et al, 2007; Barker and Miller,2009; Holupka and Newman, 2010).

2.5 Bad housing in the private rental sector

After years of decline, the private rental sector (PRS) in England has significantly increased over the past twenty years. The proportion of households renting from private landlords rose from 9 per cent in 1991 to 16 per cent in 2009/10, and the number of private tenants increased by over 80 per cent. Over the same period, the share of renting households who live in the PRS increased from 29 per cent to 48 per cent, while the proportion in social housing declined from 71 per cent to 52 per cent (Kemp, 2011). Around 8.5 million people in England now rent privately. Almost a third of renting households are families with children, and nearly half are older than 35 (Shelter, 2012).

As Rugg and Rhodes (2008) point out, many people will have some experience of renting privately during the course of their lives: perhaps as a student; when forming a new household; after relationship breakdown; when moving to change jobs; or as a

long–term home. Rugg and Rhodes found that 21 per cent of private renters had been living at their current address for five or more years. However, 'churn' in the PRS is high, reflecting the short–term nature of many of the uses of the PRS: 40 per cent of PRS households had been living at their current address for less than twelve months.

The private rental sector has sometimes been viewed as providing 'residual' accommodation for those unable to be accommodated in the owner occupied or social rental sectors. However, Kemp (2011) argues that far from being residual, the PRS in England plays a disproportionately important role in accommodating households living in poverty.

Despite its growth, in the UK the contemporary PRS remains what Rugg and Rhodes term 'a cottage industry', dominated by individual landlords renting one or two properties. In 2011, 89 per cent of landlords were private individual landlords responsible for 71 per cent of dwellings in the sector. Twenty-two per cent of landlords had let properties for three years or less with two-thirds (69 per cent) for 10 years or less. Only 8 per cent of all landlords in the private rented sector were full-time landlords with the remainder part-time landlords (DCLG, 2011a)

Housing conditions in the private rented sector

Property conditions in the private rented sector, while improving, are still worse than in either social housing or owner occupation. According to the English Housing Survey, in 2011, 5.4 million dwellings (24 per cent) were non-decent, a reduction of well over 500 thousand compared with 2010. The rate was lowest in the social rented sector (17 per cent) and highest in the private rented sector (35 per cent). The percentage of private rented properties that failed each component of the decent homes standard was: minimum standard for housing (21 per cent), thermal comfort (15 per cent), repair (9 per cent) and modern facilities (3 per cent). Private rented dwellings were also more likely than those in other tenures to experience damp problems, and were more likely to be older stock (DCLG, 2013).

Conditions have improved in the PRS, particularly with an increase in newer homes being available for rent. However, it is not necessarily the case that conditions have improved throughout the sector and Rugg and Rhodes note that the failure to meet statutory standards appears disproportionately to affect households defined as 'vulnerable'. These are households in receipt of at least one of the main means-tested or disability related benefits. In 2009, 47 per cent of vulnerable PRS households were in properties that failed to meet the decent homes standard incorporating the HHSRS definition (DCLG, 2011b). Kemp (2011) found that low-income households in the PRS fare worse in terms of housing conditions than those living in social housing. Disrepair is a much greater problem for poor households in the PRS than for those living in social housing and owner occupiers, and a much lower proportion of the PRS stock in which the poor are living meets the official 'decent homes' standard. However, Kemp noted that some aspects of property conditions are also worse for non-poor private tenants than for low-income households in social housing or owner-occupation. For example, overcrowding is relatively static in the owner-occupied sector, while it is rising in the social rented sector and rising dramatically in the private rented sector (Cookson and Sillet, 2009, p. 3).

The Decent Homes Standard
In 2000, the government set out a target to "ensure that all social housing meets set standards of decency by 2010, by reducing the number of households living in social housing that does not meet these standards."

The basic principles of the Decent Homes Standard are:

- It must meet the current statutory minimum standard for housing
- It must be in a reasonable state of repair
- It must have reasonably modern facilities and services
- It provides a reasonable degree of thermal comfort (effective insulation and efficient heating)

Health and Safety Hazards
The Housing Health and Safety Rating System (HHSRS) is a system designed to show whether dwellings pose a risk to the health and safety of their occupants. It focuses upon threats to health and safety rather than degrees of comfort and convenience.

Affordability and security of tenure are two other concerns about the PRS. A number of commentators consider that the PRS provides only insecure, short–term housing: assured short-hold tenancies mean that tenancies turn over frequently, forcing tenants into regular moves, and tenants have little protection against landlords seeking eviction. Analysis of the PRS for the Rugg review indicated that many of the uses of private renting are essentially short–term in nature, but some parts of the sector are more stable than others. For higher income groups, stays in private renting can be for very short periods. For the lowest–quartile income group, 36 per cent had stayed at their current address for five years or more. Shelter (2012) argues that the current PRS is not meeting many people's needs. Renters in England typically have short contracts of only 6 or 12 months, worry about unpredictable rent increases and their contract ending before they are ready to move. Shelter notes that families, older renters and those in London are particularly worried about the lack of stability; there is a difference between living in a home for five years knowing you can get evicted with two months notice at any time, and living in a home for five years knowing you have a five-year tenancy.

There are also concerns about tenants' ability to pay the higher rents that are charged in the private rental sector. Rugg and Rhodes estimate that housing benefit recipients were paying around £30 a week more when renting privately than in a local authority tenancy. They note that this can act as a work disincentive, as a higher income is required to shift a household off benefits. Kemp (2011) uses data from the 2007 Housing Conditions Survey to show that private tenants are as likely to be poor as social housing tenants, and much more likely to be poor than owner occupiers. Kemp also shows that the majority of households living in poverty in the PRS are not in receipt of housing benefit, but that private tenants in receipt of housing benefit are significantly more likely than non-recipients to report having difficulty affording their rent.

Recent research by Tunstall et al (2013) considers the links between housing and poverty. They point out that poverty induced by housing costs has been increasing over the last twenty years. They find that in the social rental sector, which is highly targeted towards people on low incomes, 29 per cent of social renters are in poverty before housing costs. Despite sub-market rents, 43 per cent are in poverty after housing costs. In the PRS, 18 per cent of private renters are in poverty before housing costs are taken into account, and 38 per cent after. This indicates that although fewer

private than social tenants are poor when they start to rent, the higher housing costs in the PRS pushes a higher proportion of them into poverty.

Health and the private rented sector

There is a lack of research on the health effects of living in the private rented sector, although there are studies showing that many of the bad housing conditions that impact on health are more prevalent in the private rental sector (PRS). Pevalin et al (2008) found that although private and social renters are more likely to report housing problems than owner occupiers, private renters on average report the most.

There are few studies looking specifically at the health effects on children of social or privately rented housing. There are studies from the US which suggest that 'subsidised housing' (i.e. public housing intended to be of decent quality and affordable) has short- and long-term positive associations with children's educational and economic attainment, compared with children from low-income families who live in housing in the private rental sector. Yet other studies report inconsistent associations between subsidised housing and favourable health outcomes, although Levanthal and Newman (2010) note that it is unclear which particular housing features are the source of these positive effects since housing subsidies are intended to provide a package of benefits: physically decent, uncrowded, and affordable housing. They also observe that public housing may provide greater residential stability compared with other forms of rented accommodation.

In the UK, data from the 2005 Families and Children survey showed that children in privately rented accommodation were over twice as likely to live in overcrowded accommodation, five times more likely to live in unfit housing and almost three times more likely to live in bad housing than children in owner occupied housing (Barnes et al, 2006).

Although there is little specific evidence on health and private renting, there is strong evidence on the health impacts of living in bad housing, particularly on children. The fact that bad housing conditions remain so prevalent in the private rental sector is therefore a legitimate cause for concern.

3 Numbers of people living in bad housing – Analysis of the English Housing Survey

Summary

The key findings from this chapter are:

- **Around three in ten people live in bad housing (3.6 million children, 9.2 million working age adults and 2 million pensioners).**
- **Bad housing is more common among those in private rented properties. Four in ten (3.3 million) private rented tenants live in bad housing.**
- **Over 975,000 children living in social rented housing are living in bad housing. Approximately 845,000 children living in private rented housing are living in bad housing. And over 1.7 million children living in owner occupied housing are living in bad housing.**
- **Overcrowding is more likely to affect those in social rented properties while living in non-decent housing is more common among those in private rented accommodation.**
- **Children are most likely to live in overcrowded housing compared with working age adults and pensioners. Overcrowding is also more common among those living in London.**

3.1 Introduction

The English Housing Survey (EHS) is commissioned by the Department for Communities and Local Government (DCLG) and explores the quality of housing in England. This large scale survey, currently undertaken by NatCen, collects data from over 13,000 households and about around 40,000 individuals every year. It provides valuable information and evidence to inform the development and monitoring of DCLG's housing policies. Results from the survey are also used by a wide range of other users including other government departments; local authorities; housing associations; charities; landlords; academics; construction industry professionals; consultants; and the general public.

This chapter reports analysis of the latest available EHS dataset, covering the period 2010-11. The EHS is used to look at three measures of housing:

i) A non-decent home, according to the official Decent Homes Standard
ii) An overcrowded home, according to the official Bedroom Standard
iii) 'Bad housing', defined as a non-decent home or an overcrowded home

The data is used to answer the following key questions:

- Overall what proportion (and numbers) of people (and families) live in bad housing?
- How does this differ across life stage, tenure and region?

The chapter provides a succinct summary of the key headline findings of *individuals* living in bad housing. Analyses of *families* living in bad housing can be found in Appendix A, along with estimates grossed to population numbers.

3.2 Definitions

The following definitions are used in the analysis.

Non-decent home

A non-decent home is one that fails to meet all of the following four criteria:

i) meets the current statutory minimum standard for housing. From April 2006 the fitness standard was replaced by the Housing Health and Safety Rating System (HHSRS). Dwellings posing a Category 1 hazard are non-decent on this criterion based on an assessment of 15 hazards:

1. Excess cold
2. Falling on level surfaces
3. Falling on stairs etc
4. Radiation
5. Flames, hot surfaces etc
6. Crowding and space
7. Fire
8. Dampness and mould growth
9. Noise
10. Falling between levels
11. Electrical safety
12. Carbon monoxide and fuel combustion products
13. Personal hygiene, sanitation and drainage
14. Lead
15. Domestic hygiene pests and refuse

ii) is in a reasonable state of repair (related to the age and condition of a range of building components including walls, roofs, windows, doors, chimneys, electrics and heating systems).

iii) has reasonably modern facilities and services (related 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).

iv) provides a reasonable degree of thermal comfort (related to insulation and heating efficiency).[2]

Overcrowding

Overcrowding is measured using the official 'bedroom standard' approach. The bedroom standard allocates a separate bedroom to each married or cohabiting couple, any other person aged 21 or over, each pair of adolescents aged 10-20 of the same sex, and each pair of children aged under 10. Any unpaired person is allocated a separate bedroom. This is then compared with the actual number of bedrooms, which is self-reported. Any household with a bedroom standard allocation higher than the number of actual bedrooms is said to be overcrowded.

Bad housing

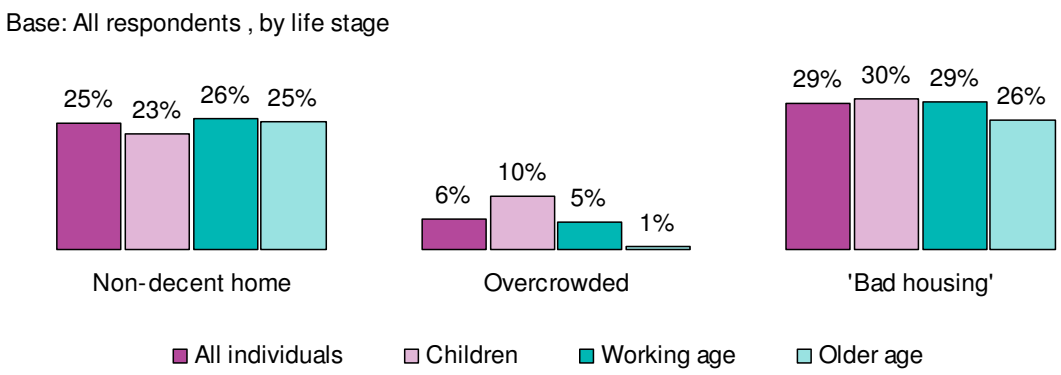
For this report, Bad Housing is defined as accommodation that is overcrowded according to the bedroom standard or is a non-decent home under the Decent Homes Standard.

[2] 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.

3.3 Main findings

Just under three in ten (29 per cent) people live in bad housing. This equates to nearly 15 million people (in England). Figure 3.1 shows the proportion of people that live in bad housing by life stage and shows little variation. However, it is notable that children were most likely to live in overcrowded housing (10 per cent) and older people least likely (1 per cent). More people's bad housing is due to poor conditions than to overcrowding.

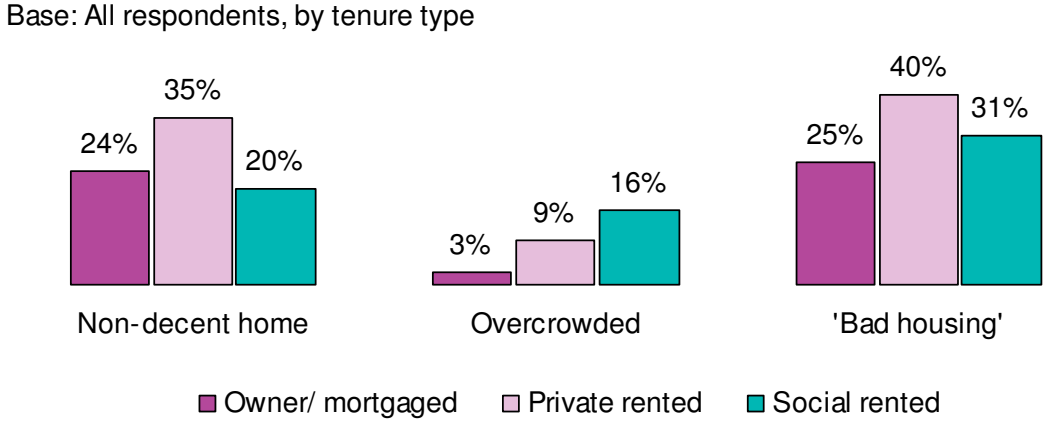
Figure 3.1 People living in bad housing



The proportion of people in bad housing varies more across tenure (Figure 3.2), being most common among those people living in private rented accommodation (40 per cent).

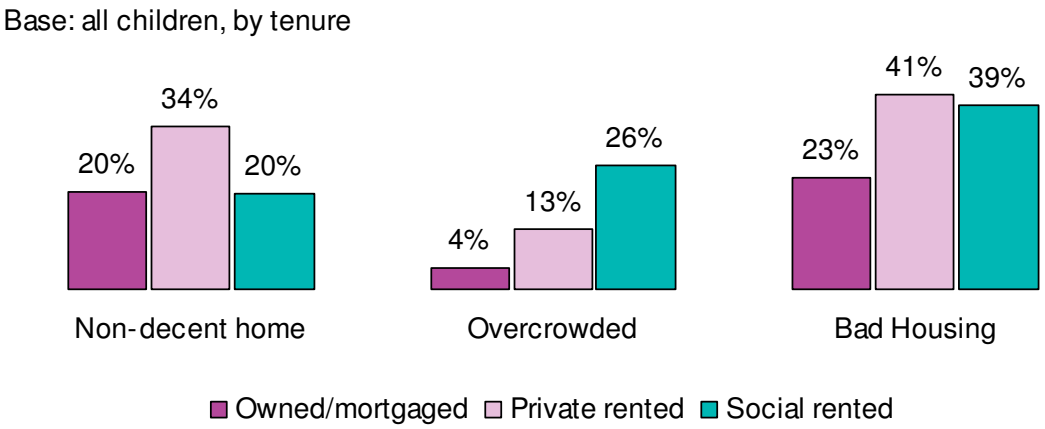
This is driven by the greater prevalence of non-decent housing among this group. However, overcrowding was most common among those in the social rented sector.

Figure 3.2 People living in bad housing, by tenure type



For children, living in bad housing is more common for those in rented accommodation (Figure 3.3), with non-decent housing being most common among those living in private rented accommodation and overcrowding more common among those in social housing. Over 975,000 children living in social rented housing are living in bad housing. Approximately 845,000 children living in private rented housing are living in bad housing. And 1.7 million children living in owner occupied housing are living in bad housing.

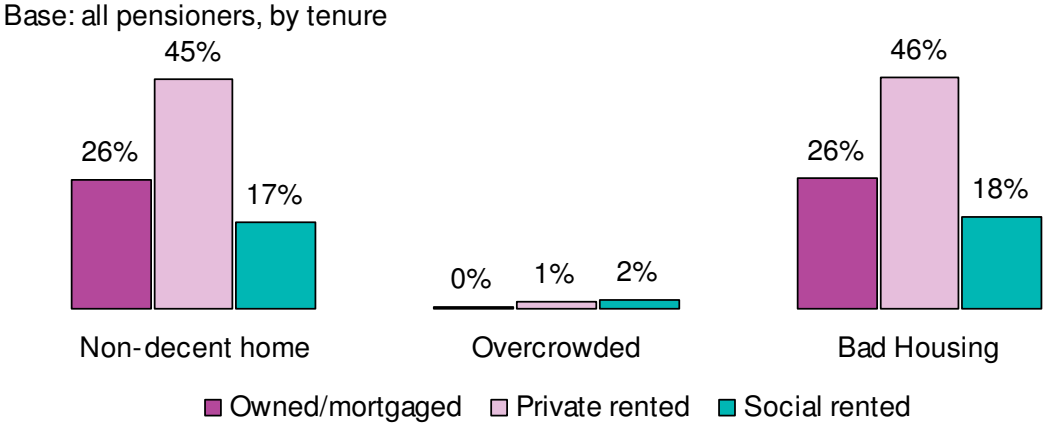
Figure 3.3 Children living in bad housing, by tenure type



The patterns above are similar to those found among working age adults although living in bad housing was less likely among those in social housing (31 per cent) due to a lower incidence of overcrowding (14 per cent) (Table A.2).

Among those of pension age, the picture is more extreme (Figure 3.4). For this group, there is a large difference in the incidence of bad housing among those living in private rented accommodation and social rented accommodation, with the former faring less favourably. This reflects a relatively high proportion of private renters living in housing that is considered 'non-decent'. Overcrowding is very rare among this group.

Figure 3.4 Pensioners living in bad housing, by tenure type



There is some variation in the incidence of living in bad housing by region (Figure 3.5). Those living in London were most likely to be living in bad housing and those in the North East least likely.

The North East had the smallest proportion of people living in non-decent housing (Figure 3.6), while London had the highest proportion of people living in overcrowded accommodation (15 per cent compared with 3-6 per cent elsewhere) (Figure 3.7). People in the South West, however, were most likely to be living in non-decent housing but amongst the least likely to be overcrowded

Figure 3.5 People living in bad housing, by region

Base: all respondents, by region

Figure 3.6 People living in non-decent housing, by region

Base: All respondents

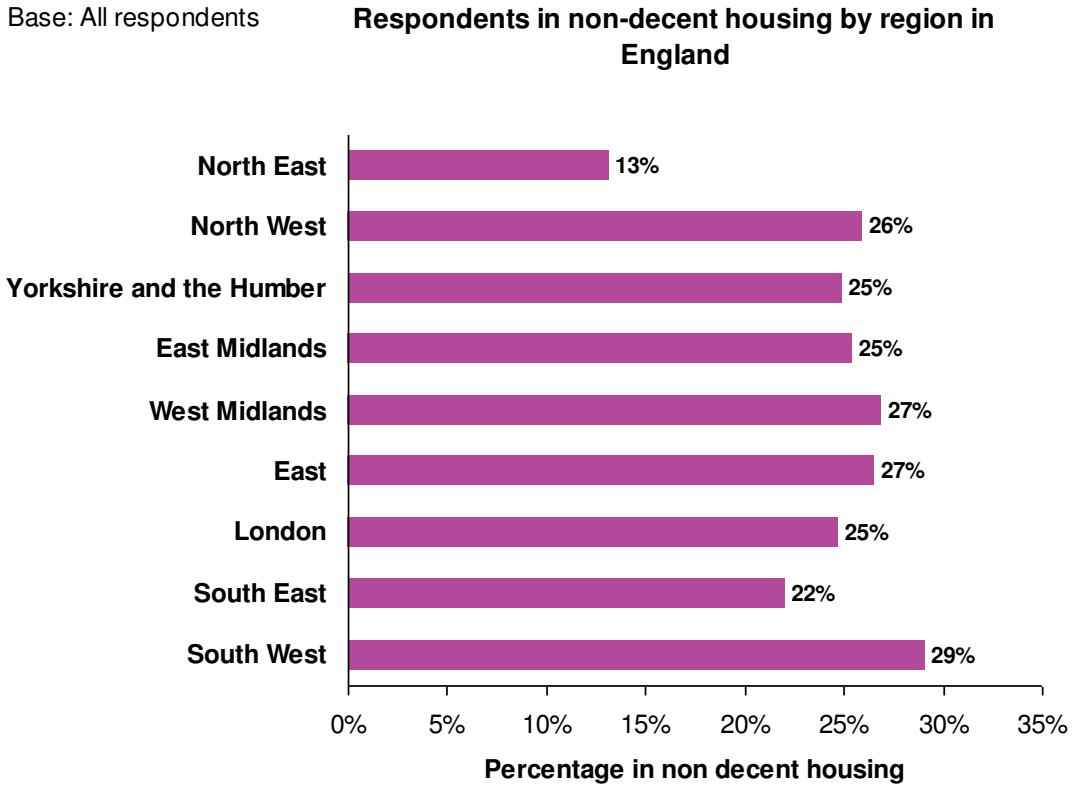
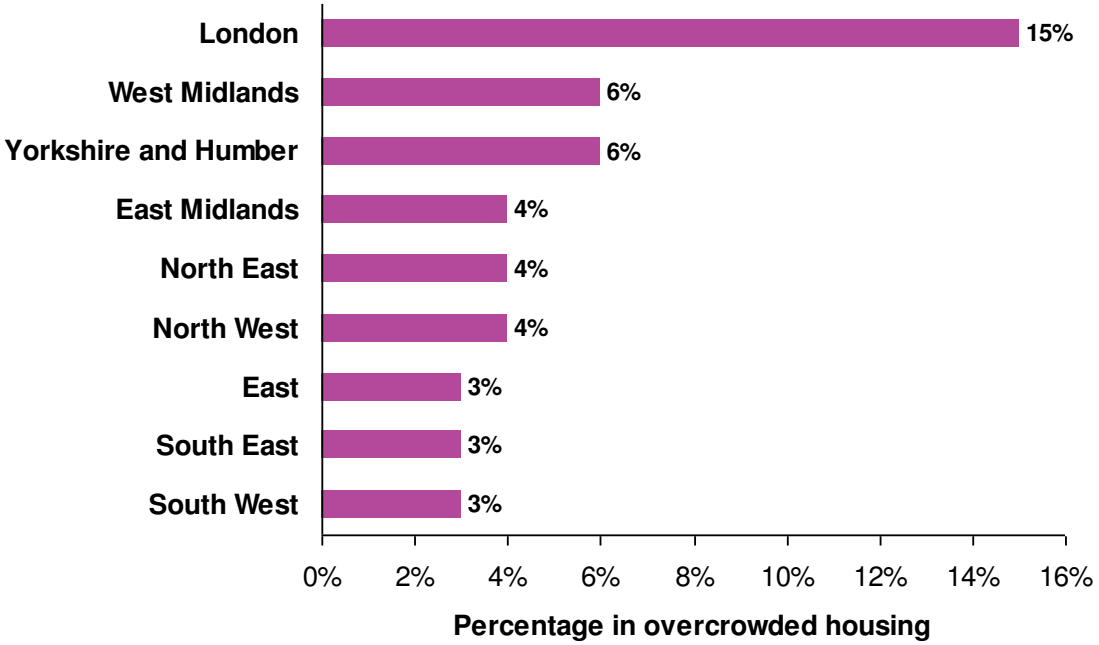


Figure 3.7 People living in overcrowded housing, by region

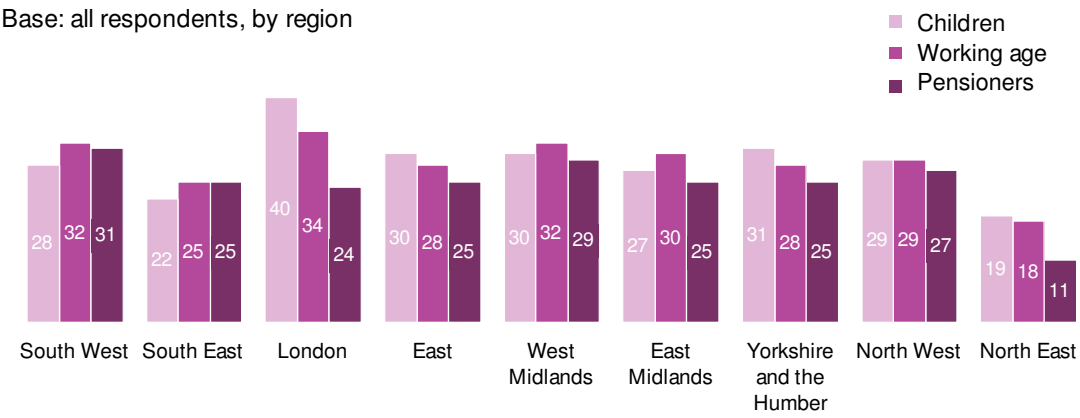
Base: All respondents, by region



The proportion of people living in non-decent housing is also similar among most regions (22-29 per cent), with the proportion in the North East being notably lower (13 per cent) (Table A.3).

Figure 3.8 Percentage of people living in bad housing, by age and region

Base: all respondents, by region



When looking at differences by life stage within region (Figure 3.8), it is clear that the proportion of children living in bad housing is notably higher in London.

Figure 3.9 Percentage of people living in bad housing, by tenure and region

Finally,

Figure 3.9 shows that rates of bad housing can vary by tenure and region. For example, the rate of bad housing in social rented housing is highest in London (46 per cent), whereas the rate of bad housing in private rented housing is highest in the North West (47 per cent). [Table A.4]

4 The health of people living in bad housing – Analysis of the Health Survey for England

Summary

The key findings from this chapter are:

- **Children living in bad housing are particularly more likely to suffer from poorer general health, respiratory health and asthma – with children living in private rented housing more likely to have poorer general health and wheezing problems**
- **A similar, if not more stark, picture emerges for working-age adults, as those living in bad housing are disproportionately at greater risk of poorer general health, low mental wellbeing and respiratory problems including asthma and breathlessness**
- **The association between living in bad housing and health problems is particularly acute among those above retirement age**
- **It is noticeable that there is less distinction between the health of people living in good and bad housing in the social rented sector. This is likely to be because of a higher concentration of more disadvantaged households in that sector, resulting in a wider range of factors that can impact on health irrespective of whether you live in bad housing or not**

4.1 Introduction

This chapter explores the health of people living in bad housing using analysis of data from the Health Survey for England (HSE). The HSE is an annual survey that monitors the health of the nation. It is an authoritative source of health statistics, with trends going back to 1993. The NHS and the Department of Health use this series to track progress towards national health targets and develop, monitor and evaluate health policy. The survey records trends in the public's health, estimates the proportion of people who have specific health conditions, and tells us about the prevalence of risk factors associated with these health conditions. NatCen runs the survey in partnership with University College London (UCL).

This chapter uses data from the 2010 HSE survey, as it included questions on housing conditions. The definition of bad housing in this chapter focuses on whether the house has damp or mould. The survey also contained specific questions on respiratory health and lung function. The survey collected information from over 5,550 children and nearly 8,500 adults.

The data is used to answer the following research questions:

- Does the health of people who live in bad housing differ from those who do not live in bad housing? The analysis looks separately at the health of children, working age adults and pensioners.
- Does the health of people who live in bad housing vary by tenure? The analysis looks separately at the health of people who live in owner occupier, private rented and social rented housing.

4.2 Definitions

The definitions used in the analysis are summarised below.

Bad housing according to 'condensation' and 'mould or fungus'

The following questions were used to identify homes with 'condensation' and 'mould or fungus'.

- During the winter months, does condensation form on the windows or walls of any room in your home, apart from bathrooms or toilets?
- During the winter months, are there patches of mould or fungus in any room in your home, apart from bathrooms or toilets?

Two groups of homes were compared:

1. Homes with 'condensation' and 'mould or fungus' ('bad housing')
2. Homes without 'condensation' and without 'mould or fungus' ('good housing')

Health of children

Both the general health and respiratory health of children is explored. General health is measured as:

- Parent's assessment of their child's health

Respiratory health is measured as:

- Having problems with breathing, apart from when they have a cold or are exercising
- How the problems with breathing have affected their daily life, by limiting them in terms of physical activity, home life, and social activity
- Suffering from asthma
- The MRC breathlessness scale. This is a measure created by the Medical Research Council, to gauge the disability associated with breathlessness by identifying breathlessness that occurs when it should not

Health of adults

As with children's health, the health of adults is measured using general health and respiratory health, using the same definitions as above. In addition, the analysis looks at whether the adults have:

- A longstanding illness and how this illness affects them in their daily life
- Psychological health problems, which is measured as a score of 4+ on the General Health Questionnaire (GHQ)
- Low mental wellbeing according to the Warwick Edinburgh Mental Wellbeing Scale

4.3 Main findings

The findings are presented separately for the three life stages: children, working-age adults and pensioners.

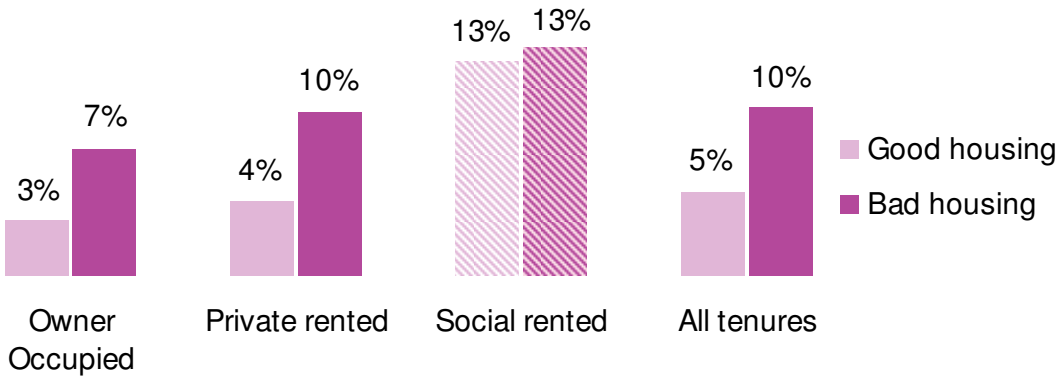
4.3.1 Children

Children living in bad housing are more likely to suffer from poorer general health. Overall, the Health Survey for England reports that 5 per cent of children in good housing suffer from fair, bad or very bad health (as opposed to very good or good), compared to twice that number (10 per cent) among children in bad housing (Figure 4.1). This difference is particularly evident in the private rented sector. Although children in the social rented are more likely to have poor health, this is likely to be attributable to other factors, such as low income and parental poor health, and indeed there is not a significant difference according to bad housing status in this sector.

Figure 4.1 Children with fair/bad/very bad health by bad housing status, by tenure

Base: Children, by tenure

Note: Textured bars indicate no significant difference between good and bad housing

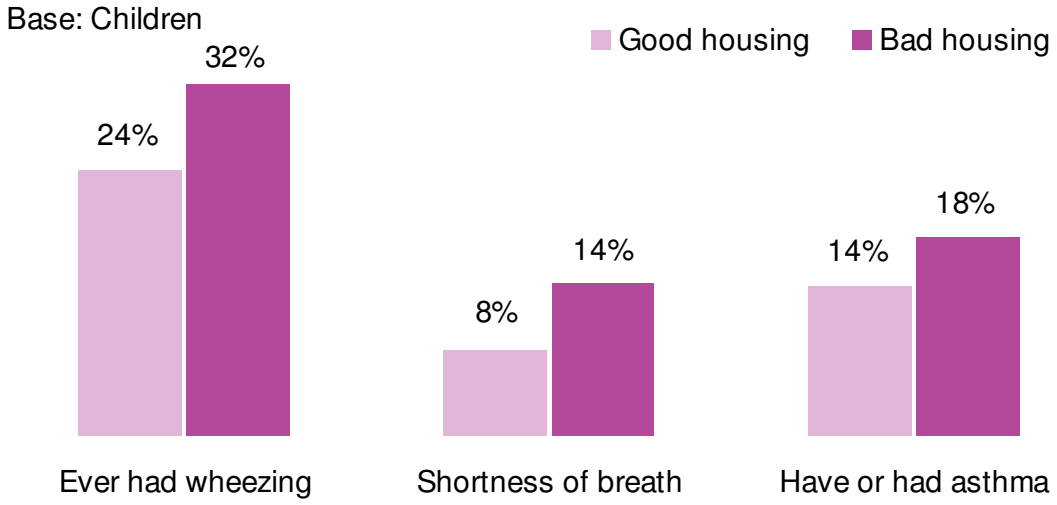


Children living in bad housing are more likely to suffer from poorer respiratory health. They are more likely to suffer from wheezing/whistling in the chest (32 per cent compared with 24 per cent) and shortness of breath (14 per cent in comparison to 8 per cent). Across all tenures, more children living in bad housing suffer from asthma. Almost a fifth (18 per cent) have been diagnosed with asthma either currently or in the past, compared with only 14 per cent of children in good housing (

Figure 4.2).

In addition, they are also more likely to experience more severe symptoms and effects on their daily life. 14 per cent of children living in bad housing experience sleep problems due to wheezing, and 12 per cent suffer interference to their normal activities. For children in good housing these figures are 7 per cent and 7 per cent respectively. (Table B.1)

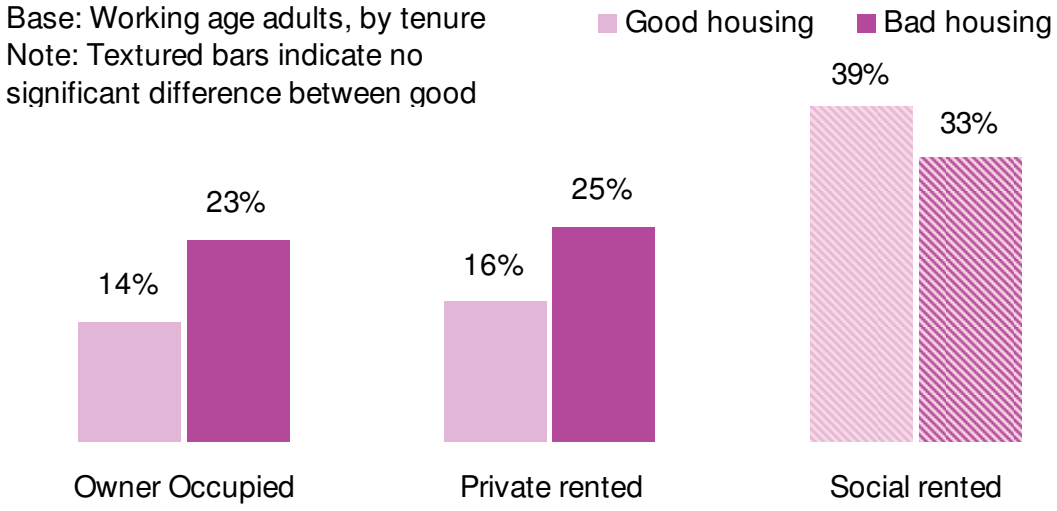
Figure 4.2 Children with health problems by bad housing status



4.3.2 Working age adults

Substantially more working age adults living in bad housing report fair, bad or very bad general health (26 per cent) than those living in good housing (17 per cent). This difference holds in all sectors except social rented, where the difference is not statistically significant (Figure 4.3).

Figure 4.3 Working age adults with fair/bad/very bad health by bad housing status, by tenure



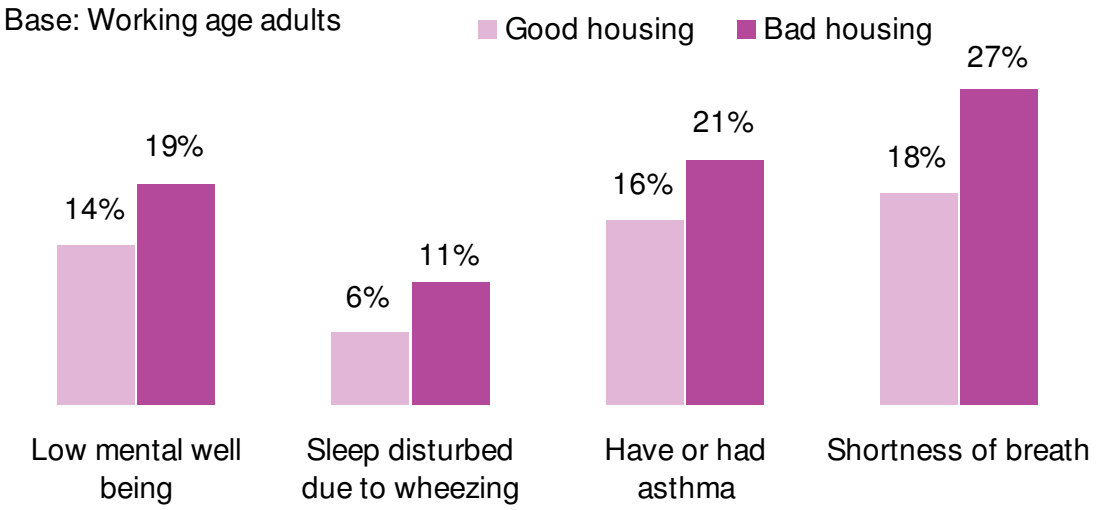
Lower levels of mental health among those living in bad housing are also reported in all categories of tenure. Overall, almost one in five (19 per cent) adults living in bad housing had low mental health, as indicated by the General Health Questionnaire, compared with 14 per cent of those in good housing. Levels of general wellbeing are also lower among adults living in bad housing, consistent across all categories of tenure (Table B.2).

Living in bad housing is associated with higher prevalence of a range of respiratory health problems, and in particular, with more serious symptoms. Those living in bad housing are almost twice as likely to have their sleep disturbed by respiratory problems at least once a week (5 per cent versus 3 per cent), and similarly more likely to have wheezing interfere quite a bit or a lot with their normal activities. Those living in privately rented bad housing are more likely to have their normal activities disrupted, and disrupted more severely. For example, 4 per cent of working age adults living in bad housing in the private rented sector had their sleep disturb by wheezing compared to 2 per cent living in good housing in that sector (Figure 4.4).

More working age adults living in bad housing also reported shortness of breath, and again, tended to display worse symptoms - 27 per cent of those in bad housing reported some form of breathlessness, compared to 18 per cent in good housing, and 12 per cent reported shortness of breath when walking up a slight hill, compared to 8 per cent. Almost one in ten (8 per cent) of those living in bad housing reported problems breathing when doing any walking whatsoever, in comparison to 5 per cent of those in good housing. (Table B.2).

Asthma is also more common among those in poorer housing overall, and in the owner occupied and privately rented sectors - 12 per cent of those in bad housing reported being currently diagnosed with asthma, compared to 9 per cent in good housing. (Table B.2)

Figure 4.4 Working age adults with health problems by bad housing status



4.3.3 Pensioners

The association of living in bad housing with health problems is particularly acute among those above retirement age (Figure 4.5). Almost three in five pensioners (58 per cent) living in bad housing report fair, bad or very bad health, with less than two in five (38 per cent) of those in good housing indicating the same. Low mental health and low levels of wellbeing are also associated with living in bad housing. Almost a fifth (19 per cent) of pensioners living in bad housing suffer from low mental health, compared with 11 per cent in good housing.

Almost twice as many of pensioners living in bad housing suffer from wheezing in the absence of a cold, compared with those in good housing (41 per cent compared with 23 per cent). And more than one in four pensioners (27 per cent) living in bad housing

suffer from shortness of breath while walking at their own pace or is too breathless to leave the house - in good housing, this figure is only 16 per cent. (Table B.3)

Figure 4.5 Pensioner health by bad housing status

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Appendix A. Numbers in bad housing: Tables from the English Housing Survey

Table A.1 Number of people in bad housing by life stage, tenure, region

		Decent homes - HHSRS 15 model				Overcrowding (bedroom standard)				Bad housing (non-decent home or overcrowding)					
		decent		non-decent		Not overcrowded		Overcrowded		Good housing		Bad housing		Weighted bases	Unweighted bases
Total		38,799,038	75%	12,816,437	25%	48,596,801	94%	3,018,674	6%	36,859,487	71%	14,755,988	29%	51,615,475	38,553
Life stage	Children	9,295,437	77%	2,726,860	23%	10,777,258	90%	1,245,039	10%	8,471,886	70%	3,550,411	30%	12,022,297	9,452
	Working age	23,500,423	74%	8,086,062	26%	29,867,860	95%	1,718,625	5%	22,422,741	71%	9,163,744	29%	31,586,485	22,917
	Older age	6,003,178	75%	2,003,515	25%	7,951,683	99%	55,010	1%	5,964,860	74%	2,041,833	26%	8,006,693	6,184
Housing tenure	Owner/mortgaged	26,777,119	76%	8,299,396	24%	34,116,656	97%	959,859	3%	26,164,430	75%	8,912,085	25%	35,076,515	20,980
	Private rent	5,365,253	65%	2,869,657	35%	7,463,932	91%	770,978	9%	4,979,095	60%	3,255,815	40%	8,234,910	7,053
	Social rent	6,656,666	80%	1,647,384	20%	7,016,213	84%	1,287,837	16%	5,715,962	69%	2,588,088	31%	8,304,050	10,520
Region	North East	2,233,978	87%	338,565	13%	2,468,715	96%	103,828	4%	2,135,002	83%	437,541	17%	2,572,543	2,067
	North West	5,240,717	74%	1,840,020	26%	6,794,084	96%	286,653	4%	5,050,931	71%	2,029,806	29%	7,080,737	5,739
	Yorkshire and the Humber	3,877,474	75%	1,285,024	25%	4,855,032	94%	307,466	6%	3,719,828	72%	1,442,670	28%	5,162,498	4,466
	East Midlands	3,332,048	75%	1,135,831	25%	4,278,900	96%	188,979	4%	3,207,077	72%	1,260,802	28%	4,467,879	3,428
	West Midlands	3,924,717	73%	1,444,463	27%	5,034,026	94%	335,154	6%	3,717,242	69%	1,651,938	31%	5,369,180	3,776
	East	4,217,244	73%	1,522,470	27%	5,560,140	97%	179,574	3%	4,115,957	72%	1,623,757	28%	5,739,714	4,317
	London	5,813,207	75%	1,911,051	25%	6,569,060	85%	1,155,198	15%	5,047,980	65%	2,676,278	35%	7,724,258	5,181
	South East	6,490,908	78%	1,833,468	22%	8,037,941	97%	286,435	3%	6,298,126	76%	2,026,250	24%	8,324,376	5,725
	South West	3,668,745	71%	1,505,545	29%	4,998,903	97%	175,387	3%	3,567,344	69%	1,606,946	31%	5,174,290	3,854

Base: Individuals in England

Source: Survey of English Housing 2010

Table A.2 Number of people in bad housing by life stage and tenure

		Life stage								
		Children			Working age			Older age		
		Housing tenure			Housing tenure			Housing tenure		
		Owner/ mortgaged	Private rent	Social rent	Owner/ mortgaged	Private rent	Social rent	Owner/ mortgaged	Private rent	Social rent
Decent homes - HHSRS 15 model	Decent	5,904,603	1,365,837	2,024,997	16,120,568	3,811,346	3,568,509	4,751,948	188,070	1,063,160
		80%	66%	80%	76%	66%	79%	74%	55%	83%
	Non-decent	1,510,798	708,347	507,715	5,157,024	2,004,820	924,218	1,631,574	156,490	215,451
		20%	34%	20%	24%	34%	21%	26%	45%	17%
Overcrowding (bedroom standard)	Not overcrowded	7,086,990	1,812,074	1,878,194	20,674,602	5,311,993	3,881,265	6,355,064	339,865	1,256,754
		96%	87%	74%	97%	91%	86%	100%	99%	98%
	Overcrowded	328,411	262,110	654,518	602,990	504,173	611,462	28,458	4,695	21,857
		4%	13%	26%	3%	9%	14%	0%	1%	2%
Bad housing (non-decent home or overcrowding)	Good housing	5,683,827	1,230,893	1,557,166	15,748,474	3,560,983	3,113,284	4,732,129	187,219	1,045,512
		77%	59%	61%	74%	61%	69%	74%	54%	82%
	Bad housing	1,731,574	843,291	975,546	5,529,118	2,255,183	1,379,443	1,651,393	157,341	233,099
		23%	41%	39%	26%	39%	31%	26%	46%	18%
	Weighted bases	7,415,401	2,074,184	2,532,712	21,277,592	5,816,166	4,492,727	6,383,522	344,560	1,278,611
	Unweighted bases	4,409	1,877	3,166	12,466	4,832	5,619	4,105	344	1,735

Base: Individuals in England
Source: Survey of English Housing 2010

Table A.3	Number of people in bad housing by life stage and region									
		Children								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	506,134	1,298,125	864,315	791,504	924,612	1,008,966	1,558,551	1,537,951	805,279
		89%	76%	76%	79%	76%	73%	76%	82%	77%
	Non-decent	65,314	421,119	277,312	212,678	299,854	379,073	488,743	339,894	242,873
		11%	24%	24%	21%	24%	27%	24%	18%	23%
Overcrowding (bedroom standard)	Not overcrowded	524,893	1,588,959	1,012,550	920,388	1,096,739	1,309,518	1,575,681	1,773,074	975,456
		92%	92%	89%	92%	90%	94%	77%	94%	93%
	Overcrowded	46,555	130,285	129,077	83,794	127,727	78,521	471,613	104,771	72,696
		8%	8%	11%	8%	10%	6%	23%	6%	7%
Bad housing (non-decent home or overcrowding)	Good housing	461,799	1,212,415	784,762	731,838	857,788	971,282	1,229,375	1,463,663	758,964
		81%	71%	69%	73%	70%	70%	60%	78%	72%
	Bad housing	109,649	506,829	356,865	272,344	366,678	416,757	817,919	414,182	289,188
		19%	29%	31%	27%	30%	30%	40%	22%	28%
	Weighted bases	571,448	1,719,244	1,141,627	1,004,182	1,224,466	1,388,039	2,047,294	1,877,845	1,048,152
	Unweighted bases	478	1,449	1,035	833	911	1,085	1,479	1,340	842

Table A.3 Number of people in bad housing by life stage and region (cont.)										
		Working age								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	1,340,751	3,154,736	2,338,716	2,023,320	2,371,966	2,436,241	3,681,053	3,945,739	2,207,901
		86%	74%	75%	73%	73%	73%	75%	77%	69%
	Non-decent	226,600	1,136,481	785,164	755,115	898,594	882,257	1,258,689	1,163,194	979,968
		14%	26%	25%	27%	27%	27%	25%	23%	31%
Overcrowding (bedroom standard)	Not overcrowded	1,510,078	4,138,787	2,951,991	2,673,899	3,071,802	3,221,201	4,273,921	4,935,283	3,090,898
		96%	96%	94%	96%	94%	97%	87%	97%	97%
Overcrowding (bedroom standard)	Overcrowded	57,273	152,430	171,889	104,536	198,758	97,297	665,821	173,650	96,971
		4%	4%	6%	4%	6%	3%	13%	3%	3%
Bad housing (non-decent home or overcrowding)	Good housing	1,286,110	3,053,152	2,264,104	1,958,015	2,236,002	2,374,875	3,258,793	3,833,155	2,158,535
		82%	71%	72%	70%	68%	72%	66%	75%	68%
	Bad housing	281,241	1,238,065	859,776	820,420	1,034,558	943,623	1,680,949	1,275,778	1,029,334
		18%	29%	28%	30%	32%	28%	34%	25%	32%
	Weighted bases	1,567,351	4,291,217	3,123,880	2,778,435	3,270,560	3,318,498	4,939,742	5,108,933	3,187,869
	Unweighted bases	1,221	3,380	2,645	2,052	2,258	2,472	3,173	3,440	2,276

Table A.3 Number of people in bad housing by life stage and region (cont.)										
		Older age								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	387,093	787,856	674,443	517,224	628,139	772,037	573,603	1,007,218	655,565
		89%	74%	75%	75%	72%	75%	78%	75%	70%
	Non-decent	46,651	282,420	222,548	168,038	246,015	261,140	163,619	330,380	282,704
		11%	26%	25%	25%	28%	25%	22%	25%	30%
Overcrowding (bedroom standard)	Not overcrowded	433,744	1,066,338	890,491	684,613	865,485	1,029,421	719,458	1,329,584	932,549
		100%	100%	99%	100%	99%	100%	98%	99%	99%
	Overcrowded		3938	6500	649	8669	3756	17764	8014	5720
			0%	1%	0%	1%	0%	2%	1%	1%
Bad housing (non-decent home or overcrowding)	Good housing	387,093	785,364	670,962	517,224	623,452	769,800	559,812	1,001,308	649,845
		89%	73%	75%	75%	71%	75%	76%	75%	69%
	Bad housing	46,651	284,912	226,029	168,038	250,702	263,377	177,410	336,290	288,424
		11%	27%	25%	25%	29%	25%	24%	25%	31%
	Weighted bases	433,744	1,070,276	896,991	685,262	874,154	1,033,177	737,222	1,337,598	938,269
	Unweighted bases	368	910	786	543	607	760	529	945	736

Base: Individuals in England

Source: Survey of English Housing 2010

Table A.4 Number of people in bad housing by tenure and region

		Owner/mortgaged								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	1,517,704	3,725,727	2,754,789	2,382,214	2,807,490	2,980,823	3,113,916	4,763,612	2,730,844
		89%	75%	76%	75%	75%	73%	78%	79%	74%
	Non-decent	192,981	1,241,951	888,289	777,630	939,720	1,092,589	895,966	1,285,831	984,439
		11%	25%	24%	25%	25%	27%	22%	21%	26%
Overcrowding (bedroom standard)	Not overcrowded	1,660,029	4,857,984	3,467,875	3,115,687	3,589,488	4,036,996	3,761,592	5,957,496	3,669,509
		97%	98%	95%	99%	96%	99%	94%	98%	99%
	Overcrowded	50,656	109,694	175,203	44,157	157,722	36,416	248,290	91,947	45,774
		3%	2%	5%	1%	4%	1%	6%	2%	1%
Bad housing (non-decent home or overcrowding)	Good housing	1,467,048	3,661,446	2,681,822	2,363,009	2,692,749	2,959,204	2,919,044	4,704,924	2,715,184
		86%	74%	74%	75%	72%	73%	73%	78%	73%
	Bad housing	243,637	1,306,232	961,256	796,835	1,054,461	1,114,208	1,090,838	1,344,519	1,000,099
		14%	26%	26%	25%	28%	27%	27%	22%	27%
	Weighted bases	1,710,685	4,967,678	3,643,078	3,159,844	3,747,210	4,073,412	4,009,882	6,049,443	3,715,283
	Unweighted bases	1,023	3,249	2,485	1,925	2,072	2,458	2,021	3,439	2,308

Table A.4 Number of people in bad housing by tenure and region (cont.)										
		Private rent								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	216,189	560,013	469,819	431,349	493,243	509,314	1,298,280	904,942	482,104
		75%	57%	66%	65%	64%	66%	68%	70%	57%
	Non-decent	73,060	430,345	240,748	230,748	282,628	260,817	610,618	381,821	358,872
		25%	43%	34%	35%	36%	34%	32%	30%	43%
Overcrowding (bedroom standard)	Not overcrowded	284,808	911,817	653,494	601,478	719,533	708,229	1,569,245	1,214,783	800,545
		98%	92%	92%	91%	93%	92%	82%	94%	95%
	Overcrowded	4,441	78,541	57,073	60,619	56,338	61,902	339,653	71,980	40,431
		2%	8%	8%	9%	7%	8%	18%	6%	5%
Bad housing (non-decent home or overcrowding)	Good housing	213,270	528,744	432,186	391,539	457,507	473,458	1,146,779	873,801	461,811
		74%	53%	61%	59%	59%	61%	60%	68%	55%
	Bad housing	75,979	461,614	278,381	270,558	318,364	296,673	762,119	412,962	379,165
		26%	47%	39%	41%	41%	39%	40%	32%	45%
	Weighted bases	289,249	990,358	710,567	662,097	775,871	770,131	1,908,898	1,286,763	840,976
	Unweighted bases	283	938	734	600	679	695	1,313	1,059	752

Table A.4 Number of people in bad housing by tenure and region (cont.)

		Social rent								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	500,085	954,977	652,866	518,485	623,984	727,107	1,401,011	822,354	455,797
		87%	85%	81%	80%	74%	81%	78%	83%	74%
	Non-decent	72,524	167,724	155,987	127,453	222,115	169,064	404,467	165,816	162,234
		13%	15%	19%	20%	26%	19%	22%	17%	26%
Overcrowding (bedroom standard)	Not overcrowded	523,878	1,024,283	733,663	561,735	725,005	814,915	1,238,223	865,662	528,849
		91%	91%	91%	87%	86%	91%	69%	88%	86%
	Overcrowded	48,731	98,418	75,190	84,203	121,094	81,256	567,255	122,508	89,182
		9%	9%	9%	13%	14%	9%	31%	12%	14%
Bad housing (non-decent home or overcrowding)	Good housing	454,684	860,741	605,820	452,529	566,986	683,295	982,157	719,401	390,349
		79%	77%	75%	70%	67%	76%	54%	73%	63%
	Bad housing	117,925	261,960	203,033	193,409	279,113	212,876	823,321	268,769	227,682
		21%	23%	25%	30%	33%	24%	46%	27%	37%
	Weighted bases	572,609	1,122,701	808,853	645,938	846,099	896,171	1,805,478	988,170	618,031
	Unweighted bases	761	1,552	1,247	903	1,025	1,164	1,847	1,227	794

Base: Individuals in England
Source: Survey of English Housing 2010

Table A.5 Number of households in bad housing by life stage, tenure, region

		Decent homes - HHSRS 15 model				Overcrowding (bedroom standard)				Bad housing (non-decent home or overcrowding)					
		decent		non-decent		Not overcrowded		Overcrowded		Good housing		Bad housing		Weighted bases	Unweighted bases
Total		15,997,710	74%	5,602,216	26%	20,935,763	97%	664,163	3%	15,572,561	72%	6,027,365	28%	21,599,926	16,047
Household type	Families with children	5,186,107	77%	1,542,226	23%	6,183,434	92%	544,899	8%	4,831,193	72%	1,897,140	28%	6,728,333	5,179
	Families without children, working age	4,721,811	71%	1,905,334	29%	6,595,472	100%	31,673	0%	4,702,996	71%	1,924,149	29%	6,627,145	4,507
	Families without children, older age	5,139,338	74%	1,783,587	26%	6,911,724	100%	11,201	0%	5,134,058	74%	1,788,867	26%	6,922,925	5,348
	Other, multi-person households	950,454	72%	371,069	28%	1,245,133	94%	76,390	6%	904,314	68%	417,209	32%	1,321,523	1,013
Housing tenure	Owner/mortgaged	10,874,559	75%	3,636,477	25%	14,323,648	99%	187,388	1%	10,754,687	74%	3,756,349	26%	14,511,036	8,614
	Private rent	2,148,498	63%	1,252,603	37%	3,210,133	94%	190,968	6%	2,059,939	61%	1,341,162	39%	3,401,101	2,832
	Social rent	2,974,653	81%	713,136	19%	3,401,982	92%	285,807	8%	2,757,935	75%	929,854	25%	3,687,789	4,601
Region	North East	954,843	85%	165,172	15%	1,095,915	98%	24,100	2%	932,059	83%	187,956	17%	1,120,015	910
	North West	2,160,137	73%	806,448	27%	2,904,584	98%	62,001	2%	2,120,068	71%	846,517	29%	2,966,585	2,417
	Yorkshire and the Humber	1,674,556	75%	556,199	25%	2,172,047	97%	58,708	3%	1,644,973	74%	585,782	26%	2,230,755	1,925
	East Midlands	1,373,857	73%	505,772	27%	1,842,053	98%	37,576	2%	1,351,333	72%	528,296	28%	1,879,629	1,416
	West Midlands	1,611,280	72%	634,568	28%	2,183,511	97%	62,337	3%	1,573,373	70%	672,475	30%	2,245,848	1,558
	East	1,764,089	74%	623,025	26%	2,348,469	98%	38,645	2%	1,739,875	73%	647,239	27%	2,387,114	1,781
	London	2,275,340	75%	773,707	25%	2,774,142	91%	274,905	9%	2,092,362	69%	956,685	31%	3,049,047	1,992
	South East	2,633,112	76%	840,285	24%	3,407,561	98%	65,836	2%	2,588,908	75%	884,489	25%	3,473,397	2,382
	South West	1,550,496	69%	697,040	31%	2,207,481	98%	40,055	2%	1,529,610	68%	717,926	32%	2,247,536	1,666

Base: Households in England Source: Survey of English Housing 2010

Table A.6 Number of households in bad housing by life stage and tenure

		Household type											
		Families with children			Families without children, working age			Families without children, older age			Other, multi-person households		
		Housing tenure			Housing tenure			Housing tenure			Housing tenure		
		Owner/ mortgaged	Private rent	Social rent	Owner/ mortgaged	Private rent	Social rent	Owner/ mortgaged	Private rent	Social rent	Owner/ mortgaged	Private rent	Social rent
Decent homes - HHSRS 15 model	Decent	3,342,375	771,688	1,072,044	3,146,318	873,419	702,074	3,960,039	191,622	987,677	425,827	311,769	212,858
		80%	64%	81%	73%	62%	77%	74%	57%	82%	68%	70%	86%
	Non-decent	857,539	431,646	253,041	1,154,655	541,798	208,881	1,424,724	142,726	216,137	199,559	136,433	35,077
		20%	36%	19%	27%	38%	23%	26%	43%	18%	32%	30%	14%
Overcrowding (bedroom standard)	Not overcrowded	4,051,207	1,058,356	1,073,871	4,287,046	1,406,514	901,912	5,376,383	333,357	1,201,984	609,012	411,906	224,215
		96%	88%	81%	100%	99%	99%	100%	100%	100%	97%	92%	90%
	Overcrowded	148,707	144,978	251,214	13,927	8,703	9,043	8,380	991	1,830	16,374	36,296	23,720
		4%	12%	19%	0%	1%	1%	0%	0%	0%	3%	8%	10%
Bad housing (non-decent home or overcrowding)	Good housing	3,241,191	706,743	883,259	3,140,173	868,365	694,458	3,957,073	190,631	986,354	416,250	294,200	193,864
		77%	59%	67%	73%	61%	76%	73%	57%	82%	67%	66%	78%
	Bad housing	958,723	496,591	441,826	1,160,800	546,852	216,497	1,427,690	143,717	217,460	209,136	154,002	54,071
		23%	41%	33%	27%	39%	24%	27%	43%	18%	33%	34%	22%
	Weighted bases	4,199,914	1,203,334	1,325,085	4,300,973	1,415,217	910,955	5,384,763	334,348	1,203,814	625,386	448,202	247,935
	Unweighted bases	2,482	1,063	1,634	2,359	1,096	1,052	3,419	325	1,604	354	348	311

Base: Households in England

Source: Survey of English Housing 2010

Table A.7 Number of households in bad housing by life stage and region										
		Families with children								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	290,643	738,179	492,917	430,125	519,389	558,796	827,421	863,099	465,538
		89%	76%	76%	76%	75%	75%	75%	81%	76%
	Non-decent	36,542	235,039	154,955	133,913	171,582	187,112	272,587	207,473	143,023
		11%	24%	24%	24%	25%	25%	25%	19%	24%
Overcrowding (bedroom standard)	Not overcrowded	306,128	917,553	598,913	531,910	641,890	716,335	872,299	1,019,690	578,716
		94%	94%	92%	94%	93%	96%	79%	95%	95%
	Overcrowded	21,057	55,665	48,959	32,128	49,081	29,573	227,709	50,882	29,845
		6%	6%	8%	6%	7%	4%	21%	5%	5%
Bad housing (non-decent home or overcrowding)	Good housing	270,141	702,122	465,266	409,407	490,634	539,714	677,714	828,903	447,292
		83%	72%	72%	73%	71%	72%	62%	77%	73%
	Bad housing	57,044	271,096	182,606	154,631	200,337	206,194	422,294	241,669	161,269
		17%	28%	28%	27%	29%	28%	38%	23%	27%
	Weighted bases	327,185	973,218	647,872	564,038	690,971	745,908	1,100,008	1,070,572	608,561
	Unweighted bases	269	798	578	454	504	580	769	754	473

Table A7 Number of households in bad housing by life stage and region (cont.)										
		Families without children, working age								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	280,617	609,852	512,263	413,773	487,219	488,539	717,053	771,603	440,892
		81%	70%	73%	68%	72%	71%	70%	74%	64%
	Non-decent	66,457	257,145	186,125	194,288	185,314	199,084	300,379	272,846	243,696
		19%	30%	27%	32%	28%	29%	30%	26%	36%
Overcrowding (bedroom standard)	Not overcrowded	344,792	864,906	693,661	605,580	671,921	686,094	1,000,676	1,044,449	683,393
		99%	100%	99%	100%	100%	100%	98%	100%	100%
	Overcrowded	2,282	2,091	4,727	2,481	612	1,529	16,756		1,195
		1%	0%	1%	0%	0%	0%	2%		0%
Bad housing (non-decent home or overcrowding)	Good housing	278,335	607,761	510,849	411,967	486,607	488,539	706,443	771,603	440,892
		80%	70%	73%	68%	72%	71%	69%	74%	64%
	Bad housing	68,739	259,236	187,539	196,094	185,926	199,084	310,989	272,846	243,696
		20%	30%	27%	32%	28%	29%	31%	26%	36%
	Weighted bases	347,074	866,997	698,388	608,061	672,533	687,623	1,017,432	1,044,449	684,588
	Unweighted bases	263	657	553	402	438	477	584	670	463

Table A7 Number of households in bad housing by life stage and region (cont.)										
		Families without children, older age								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	328,247	669,328	571,258	455,706	529,523	640,836	502,667	868,178	573,595
		87%	72%	75%	76%	69%	76%	77%	75%	69%
	Non-decent	49,156	265,149	188,068	147,544	232,507	206,829	145,987	287,561	260,786
		13%	28%	25%	24%	31%	24%	23%	25%	31%
Overcrowding (bedroom standard)	Not overcrowded	377,403	934,477	756,954	603,250	757,719	847,665	648,654	1,154,167	831,435
		100%	100%	100%	100%	99%	100%	100%	100%	100%
	Overcrowded			2372		4311			1572	2946
				0%		1%			0%	0%
Bad housing (non-decent home or overcrowding)	Good housing	328,247	669,328	571,258	455,706	527,209	640,836	502,667	866,606	572,201
		87%	72%	75%	76%	69%	76%	77%	75%	69%
	Bad housing	49,156	265,149	188,068	147,544	234,821	206,829	145,987	289,133	262,180
		13%	28%	25%	24%	31%	24%	23%	25%	31%
	Weighted bases	377,403	934,477	759,326	603,250	762,030	847,665	648,654	1,155,739	834,381
	Unweighted bases	323	804	682	476	522	639	453	809	640

Base: Households in England
Source: Survey of English Housing 2010

Table A.8 Number of households in bad housing by tenure and region

		Owner/mortgaged								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	624,656	1,481,696	1,161,939	987,237	1,118,846	1,243,148	1,211,683	1,893,221	1,152,133
		87%	73%	76%	74%	73%	74%	76%	76%	72%
	Non-decent	95,991	535,726	365,416	348,397	415,673	439,076	384,362	593,715	458,121
		13%	27%	24%	26%	27%	26%	24%	24%	28%
Overcrowding (bedroom standard)	Not overcrowded	709,031	1,997,423	1,495,744	1,327,182	1,508,049	1,674,909	1,544,714	2,468,029	1,598,567
		98%	99%	98%	99%	98%	100%	97%	99%	99%
	Overcrowded	11,616	19,999	31,611	8,452	26,470	7,315	51,331	18,907	11,687
		2%	1%	2%	1%	2%	0%	3%	1%	1%
Bad housing (non-decent home or overcrowding)	Good housing	613,040	1,469,837	1,149,184	984,275	1,099,734	1,238,740	1,170,463	1,881,196	1,148,218
		85%	73%	75%	74%	72%	74%	73%	76%	71%
	Bad housing	107,607	547,585	378,171	351,359	434,785	443,484	425,582	605,740	462,036
		15%	27%	25%	26%	28%	26%	27%	24%	29%
	Weighted bases	720,647	2,017,422	1,527,355	1,335,634	1,534,519	1,682,224	1,596,045	2,486,936	1,610,254
	Unweighted bases	423	1307	1028	805	836	1008	791	1415	1001

Table A.8 Number of households in bad housing by tenure and region (cont.)										
		Private rent								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	90,939	225,489	195,611	167,619	204,980	198,291	496,193	367,737	201,639
		73%	55%	63%	62%	63%	63%	68%	68%	55%
	Non-decent	33,701	184,321	115,120	102,843	121,276	116,272	238,532	176,698	163,840
		27%	45%	37%	38%	37%	37%	32%	32%	45%
Overcrowding (bedroom standard)	Not overcrowded	122,906	390,753	298,728	257,930	314,098	300,785	644,042	526,063	354,828
		99%	95%	96%	95%	96%	96%	88%	97%	97%
	Overcrowded	1,734	19,057	12,003	12,532	12,158	13,778	90,683	18,372	10,651
		1%	5%	4%	5%	4%	4%	12%	3%	3%
Bad housing (non-decent home or overcrowding)	Good housing	89,966	219,133	188,399	160,829	197,552	189,744	457,016	360,196	197,104
		72%	53%	61%	59%	61%	60%	62%	66%	54%
	Bad housing	34,674	190,677	122,332	109,633	128,704	124,819	277,709	184,239	168,375
		28%	47%	39%	41%	39%	40%	38%	34%	46%
	Weighted bases	124,640	409,810	310,731	270,462	326,256	314,563	734,725	544,435	365,479
	Unweighted bases	120	379	312	236	272	277	491	433	312

Table A.8 Number of households in bad housing by tenure and region (cont.)

		Social rent								
		Region								
		North East	North West	Yorkshire and the Humber	East Midlands	West Midlands	East	London	South East	South West
Decent homes - HHSRS 15 model	Decent	239,248	452,952	317,006	219,001	287,454	322,650	567,464	372,154	196,724
		87%	84%	81%	80%	75%	83%	79%	84%	72%
	Non-decent	35,480	86,401	75,663	54,532	97,619	67,677	150,813	69,872	75,079
		13%	16%	19%	20%	25%	17%	21%	16%	28%
Overcrowding (bedroom standard)	Not overcrowded	263,978	516,408	377,575	256,941	361,364	372,775	585,386	413,469	254,086
		96%	96%	96%	94%	94%	96%	81%	94%	93%
	Overcrowded	10,750	22,945	15,094	16,592	23,709	17,552	132,891	28,557	17,717
		4%	4%	4%	6%	6%	4%	19%	6%	7%
Bad housing (non-decent home or overcrowding)	Good housing	229,053	431,098	307,390	206,229	276,087	311,391	464,883	347,516	184,288
		83%	80%	78%	75%	72%	80%	65%	79%	68%
	Bad housing	45,675	108,255	85,279	67,304	108,986	78,936	253,394	94,510	87,515
		17%	20%	22%	25%	28%	20%	35%	21%	32%
	Weighted bases	274,728	539,353	392,669	273,533	385,073	390,327	718,277	442,026	271,803
	Unweighted bases	367	731	585	375	450	496	710	534	353

Base: Households in England
Source: Survey of English Housing 2010

Appendix B. Bad housing and health: Tables from the Health Survey for England

Table B.1 Children's health by bad housing and tenure

				Household tenure					
		Total		Owner Occupied		Private rented		Social rented	
	Total	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing
General Health									
Self-assessed general health									
Very good/Good	94%	**95%**	**90%**	**97%**	**93%**	**96%**	**90%**	87%	87%
Fair/Bad/Very Bad	6%	**5%**	**10%**	**3%**	**7%**	**4%**	**10%**	13%	13%
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted Bases	4074	2913	1161	2029	567	428	225	456	369
Wheezing									
Ever had wheezing/whistling in the chest?									
Yes	26%	**24%**	**32%**	**23%**	**31%**	25%	28%	29%	36%
No	74%	**76%**	**68%**	**77%**	**69%**	75%	72%	71%	64%
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted Bases	4074	2913	1161	2029	567	428	225	456	369
Ever had wheezing without having a cold?									
Never had wheezing	74%	76%	68%	77%	69%	75%	72%	71%	64%
Yes	15%	13%	20%	12%	16%	16%	21%	17%	23%
No	11%	11%	12%	11%	14%	9%	7%	12%	13%
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted Bases	4074	2913	1161	2029	567	428	225	456	369
How often in last 12 months sleep disturbed due to whistling/wheezing?									
Never had wheezing	74%	76%	68%	77%	69%	75%	72%	71%	64%
Not had wheezing in past 12 months	11%	11%	12%	11%	13%	10%	9%	11%	12%
Never woken with wheezing	6%	**6%**	**6%**	6%	6%	**7%**	**4%**	5%	7%
Disturbed sleep, but less than 1 night per week	5%	**5%**	**8%**	4%	9%	**4%**	**9%**	8%	6%
At least 1 night per week	4%	**3%**	**7%**	2%	3%	**4%**	**6%**	4%	11%
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted bases	4074	2913	1161	2029	567	428	225	456	369

		Children's health by bad housing and tenure cont.							
		Total		Owner occupied		Private rented		Social rented	
	Total	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing
How often in last 12 months wheezing interfered with normal activities?									
Never had wheezing	76%	78%	70%	79%	71%	78%	73%	76%	68%
Not had wheezing in past 12 months	12%	11%	12%	12%	13%	11%	9%	11%	12%
No interference with daily activities	4%	**4%**	**5%**	3%	6%	**5%**	**4%**	4%	5%
A little interference	6%	**5%**	**8%**	5%	8%	**4%**	**11%**	6%	7%
Quite a bit/a lot of interference	2%	**2%**	**4%**	1%	2%	**3%**	**4%**	2%	7%
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted bases	4074	2913	1161	2029	567	428	225	456	369
Asthma									
Whether have had asthma now or previously									
Current asthma	9%	**8%**	**12%**	8%	10%	10%	11%	**9%**	**14%**
Past asthma	6%	**6%**	**6%**	6%	6%	4%	5%	**5%**	**9%**
Never had asthma	85%	**86%**	**82%**	86%	84%	86%	84%	**86%**	**78%**
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted bases	4074	2913	1161	2029	567	428	225	456	369
Breathlessness									
MRC shortness of breath scale									
None except with strenuous exercise	90%	**92%**	**86%**	**93%**	**89%**	89%	84%	**91%**	**83%**
Some unspecified breathlessness	4%	**4%**	**5%**	**4%**	**4%**	4%	7%	**3%**	**6%**
Short of breath when hurrying on level ground or walking up a slight hill	3%	**3%**	**5%**	**2%**	**5%**	5%	4%	**3%**	**6%**
Short of breath when walking on level ground at own pace/ too breathless to leave house	2%	**1%**	**3%**	**1%**	**2%**	2%	5%	**3%**	**6%**
Weighted bases	4067	2862	1205	1943	554	456	239	462	411
Unweighted bases	4074	2913	1161	2029	567	428	225	456	369

Table B.2 Working age adult's health by bad housing and tenure

				Household tenure					
		Total		Owner Occupied		Private rented		Social rented	
	Total	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing
General Health									
Self-assessed general health									
Very good/Good	80%	**83%**	**74%**	**86%**	**77%**	**84%**	**75%**	61%	67%
Fair/Bad/Very Bad	20%	**17%**	**26%**	**14%**	**23%**	**16%**	**25%**	39%	33%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted Bases	4750	3649	1101	2659	600	503	237	487	264
Mental Wellbeing									
General Health Questionnaire Score									
Score 0	61%	**63%**	**54%**	**67%**	**60%**	57%	49%	52%	45%
Score 1-3	24%	**23%**	**26%**	**22%**	**24%**	26%	31%	25%	28%
Score 4+ (i.e. low mental health)	15%	**14%**	**19%**	**11%**	**16%**	18%	20%	23%	27%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted bases	4750	3649	1101	2659	600	503	237	487	264
Warwick Edinburgh Mental Wellbeing Scale Score (age standardised)									
Mean (weighted)	50.8	**51.4**	**49.2**	**52**	**50.2**	**50.9**	**49.2**	47.9	46.5
Weighted bases	3456	2647	809	1884	473	464	170	299	166
Unweighted bases	4024	3092	932	2307	530	426	197	359	205
Wheezing									
Ever had wheezing/whistling in the chest?									
Yes	31%	29%	34%	**26%**	**32%**	32%	32%	43%	41%
No	69%	71%	66%	**74%**	**68%**	68%	68%	57%	59%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted Bases	4750	3649	1101	2659	600	503	237	487	264
Ever had wheezing without having a cold?									
Never had wheezing	69%	71%	66%	74%	68%	68%	68%	57%	59%
Yes	21%	**19%**	**25%**	**17%**	**24%**	**19%**	**25%**	31%	28%
No	10%	**10%**	**9%**	**9%**	**7%**	**12%**	**7%**	12%	13%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted Bases	4750	3649	1101	2659	600	503	237	487	264

	Working age adult's health by bad housing and tenure cont.								
	Total	**Total**		**Owner occupied**		**Private rented**		**Social rented**	
		Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing
How often in last 12 months sleep disturbed due to whistling/wheezing?									
Never had wheezing	70%	71%	66%	74%	68%	68%	68%	57%	59%
Not had wheezing in past 12 months	14%	14%	12%	14%	11%	15%	15%	13%	11%
Never woken with wheezing	9%	**9%**	**11%**	7%	12%	**11%**	**9%**	15%	11%
Disturbed sleep, but less than 1 night per week	4%	**4%**	**6%**	3%	6%	**4%**	**4%**	7%	8%
At least 1 night per week	3%	**3%**	**5%**	2%	3%	**2%**	**4%**	8%	11%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted bases	4750	3649	1101	2659	600	503	237	487	264
How often in last 12 months wheezing interfered with normal activities?									
Never had wheezing	69%	71%	66%	74%	68%	68%	68%	57%	59%
Not had wheezing in past 12 months	14%	14%	12%	14%	11%	15%	15%	13%	11%
No interference with daily activities	8%	8%	9%	7%	10%	**10%**	**8%**	11%	10%
A little interference	6%	5%	8%	4%	8%	**5%**	**7%**	11%	11%
Quite a bit/a lot of interference	3%	2%	4%	1%	3%	**2%**	**3%**	8%	9%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted bases	4750	3649	1101	2659	600	503	237	487	264
Asthma									
Whether have had asthma now or previously									
Current asthma	10%	**9%**	**12%**	**8%**	**12%**	**8%**	**10%**	15%	15%
Past asthma	8%	**7%**	**9%**	**7%**	**9%**	**8%**	**12%**	8%	6%
Never had asthma	83%	**84%**	**79%**	**85%**	**79%**	**85%**	**77%**	77%	79%
Weighted bases	5120	3922	1198	2760	637	657	283	504	278
Unweighted bases	4750	3649	1101	2659	600	503	237	487	264
Breathlessness									
MRC shortness of breath scale									
None except with strenuous exercise	80%	**82%**	**73%**	**85%**	**74%**	82%	77%	63%	65%
Some unspecified breathlessness	6%	**5%**	**7%**	**5%**	**9%**	8%	4%	5%	7%
Short of breath when hurrying on level ground or walking up a slight hill	9%	**8%**	**12%**	**6%**	**11%**	7%	12%	15%	14%

	Working age adult's health by bad housing and tenure cont.								
	Total	**Total**		**Owner occupied**		**Private rented**		**Social rented**	
		Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing	Good housing	Bad housing
Short of breath when walking on level ground at own pace/ too breathless to leave house	6%	**5%**	**8%**	**4%**	**6%**	3%	7%	18%	14%
	5120	**3922**	**1198**	**2760**	**367**	657	283	504	278
	4750	**3649**	**1101**	**2659**	**600**	503	237	487	264

Table B.3 Pensioner's health by bad housing			
		Total	
	Total	Good housing	Bad housing
General Health			
Self-assessed general health			
Very good/Good	60%	**62%**	**42%**
Fair/Bad/Very Bad	40%	**38%**	**58%**
Weighted bases	1270	1185	84
Unweighted Bases	1559	1453	106
Mental Wellbeing			
General Health Questionnaire Score			
Score 0	65%	**66%**	**53%**
Score 1-3	24%	**24%**	**28%**
Score 4+ (i.e. low mental health)	11%	**11%**	**19%**
Weighted bases	1270	1185	84
Unweighted bases	1559	1453	106
Warwick Edinburgh Mental Wellbeing Scale Score (observed)			
Mean (weighted)	51.8	**51.9**	**49.7**
Weighted bases	969	907	62
Unweighted bases	1188	1112	76
Wheezing			
Ever had wheezing/whistling in the chest?			
Yes	34%	**32%**	**50%**
No	66%	**68%**	**50%**
Weighted bases	1270	1185	84
Unweighted Bases	1559	1453	106
Ever had wheezing without having a cold?			
Never had wheezing	66%	68%	50%
Yes	24%	**23%**	**41%**
No	10%	**10%**	**8%**
Weighted bases	1270	1185	84
Unweighted Bases	1559	1453	106
How often in last 12 months sleep disturbed due to whistling/wheezing?			
Never had wheezing	66%	68%	50%
Not had wheezing in past 12 months	11%	11%	11%
Never woken with wheezing	14%	13%	26%
Disturbed sleep, but less than 1 night per week	3%	4%	2%
At least 1 night per week	5%	4%	11%
Weighted bases	1270	1185	84

	Pensioner's health by bad health cont.		
	Total	Good housing	Bad housing
Unweighted bases	1559	1453	106
How often in last 12 months wheezing interfered with normal activities?			
Never had wheezing	66%	68%	50%
Not had wheezing in past 12 months	11%	11%	11%
No interference with daily activities	10%	10%	13%
A little interference	7%	7%	10%
Quite a bit/a lot of interference	5%	4%	16%
Weighted bases	1270	1185	84
Unweighted bases	1559	1453	106
Asthma			
Whether have had asthma now or previously			
Current asthma	9%	9%	14%
Past asthma	3%	**3%**	**5%**
Never had asthma	87%	**88%**	**81%**
Weighted bases	1270	1185	84
Unweighted bases	1559	1453	106
Breathlessness			
MRC shortness of breath scale			
None except with strenuous exercise	62%	**63%**	**50%**
Some unspecified breathlessness	5%	**5%**	**4%**
Short of breath when hurrying on level ground or walking up a slight hill	17%	**16%**	**19%**
Short of breath when walking on level ground at own pace/ too breathless to leave house	17%	**16%**	**27%**
Weighted bases	1270	1185	84
Unweighted bases	1559	1453	106