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No Place Like an Accessible Home

Quality of life and opportunity for disabled
people with accessible housing needs

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Key Findings

The hidden market for accessible homes

Estimates based on official data are likely to under-state the number of households needing accessible housing for at least two reasons: they don't take account of households with disabled children and, as interviews conducted for this research show, disabled people do not always realise the extent of their needs.

On that cautious basis, the research suggests:

- at least **1.8 million** households in England have an identified need for accessible housing, of whom **580,000** are working age;
- 40% of households with accessible housing needs (**700,000**) have incomes in the top half of the national income distribution, and **360,000** have savings of £12,000 or more;
- 1 in 4 households needing accessible housing (**480,000**) have incomes above the median income of all owner occupier households, suggesting a significant capacity to become owners;
- 1.0 million households containing a disabled person with a need for accessible housing are already owner-occupiers, of whom 230,000 are of working age;
- households including a disabled person have similar interests and motivations for moving home as others, although their requirements may differ.

Impacts of need for accessible housing:

- at least 1 in 6 households with an identified need do not have all the accessibility features they need (**300,000** households, including **140,000** working age households). Working age households are less likely to have the features they need than older households;
- people with unmet need for accessible housing are estimated to be **four times more likely to be unemployed or not seeking work due to sickness/disability** than disabled people without needs or whose needs are met;
- having needs for accessible housing met makes all the difference in terms of feeling in control, safer, having a social life, and health and wellbeing;
- unmet needs often have a direct impact on ability to carry out everyday tasks, feeling helpless and dependent on the help of carers or family, and on social isolation.

Better data is needed:

- the English Housing Survey could be developed to become a more powerful tool for planning, most critically by gathering data on families with disabled children, and by aligning the terminology on access requirements better with the terminology used in Building Regulations;
- this would be usefully complemented by systematic monitoring of the number of new homes built that conform to access standards set out in Building Regulations.

Part 1: Background

Research brief and approach

Research questions

Habinteg Housing and Papworth Trust commissioned CASE at LSE to report, primarily in relation to working age disabled people, on:

1. The extent of need for housing which has accessible features (for example a stair lift), and the impact on disabled people of living in a home where their need for such a feature is not met. These impacts include economic impacts such as working patterns, income, assets, as well as impacts on wider quality of life.
2. More specifically, how far unmet need for accessibility features, or lack of access to suitable housing options, is associated with disabled people not being in work.
3. The impact of the above factors on housing choices, including what proportion of households containing a disabled person are currently, or might be in a position to become, owner-occupiers.

We were also asked to advise on potential changes to data collected for large scale surveys which might enable them to become a more useful source of information for policy-makers, developers and advocacy groups.

This report is part of a programme of research commissioned by Papworth Trust and Habinteg Housing. Ipsos MORI conducted opinion research on public attitudes, and further work is being done by the Institute of Public Care at Oxford Brookes University around improving information about households containing disabled people for developers of housing and council planners.

Research approach and methods

The research has four main elements:

- a short **background literature review**;
- **quantitative analysis** of relevant information from the English Housing Survey (EHS), a nationally representative survey. The detailed module on housing accessibility features was last conducted in 2011-12. Another version has been undertaken more recently, but the data are not yet available. All results are weighted using the household weights supplied with the data to counteract sampling design and non-response bias. Results are presented for England at the household level, unless otherwise specified, and have been checked for statistical robustness;
- **qualitative information from an on-line survey** completed by 1,001 disabled people among Public Knowledge's standing panel of respondents. This is qualitative information, and although the views expressed are drawn from a group of 1,001 respondents, we cannot be sure that they are representative of disabled people generally. The respondents are 'self-selected', and there may be people with other needs who have not taken part in the survey (unlike the EHS, which is carefully conducted so as to provide a nationally representative sample). More specifically this means that any numbers used (e.g. about who took part, or how many of the people responding held specific views) should not be regarded as nationally representative. This does not undermine the importance of what people have told us – on the contrary there is a rich and

varied set of information and opinions to draw on, and the fact that 1,001 disabled people replied is very positive. But we must be aware that other disabled people may have different opinions;

- **in-depth telephone interviews** with 40 of the people who responded to the Public Knowledge survey and indicated they were willing to be interviewed. This is clearly not a representative sample and no general (statistically valid) conclusions should be drawn from this material. In fact we concentrated on people who had unmet needs, as well as those who had indicated they were considering their housing choices, to get information most relevant to this research. On the other hand the value and importance of the material comes from the rich and detailed information which it provides about specific experiences of disabled people and households, all but three of whom had unmet needs. Some of this is presented in the form of specific (anonymised) more detailed case studies, and through verbatim quotes.

The research thus uses a range of methods to answer the three main questions set out in the previous page. The next section of this report pulls together the information from all these different strands to respond to the research questions. The subsequent annexes provide more detailed information about the quantitative element (the analysis of the EHS), then the two qualitative elements (the survey and in-depth interviews), followed by the short literature review.

Part 2: Summary of the Main Findings

The need for accessible housing and the extent to which it is met

The main official data about the extent of need and unmet need comes from the English Housing Survey (EHS). That survey covers the 22.1 million households in England. It uses a ‘limiting long-standing illness or disability’ (LLID) definition of disability. As we explain in more depth below, estimates derived from the EHS are likely to give a cautious picture of the actual level of need, for three reasons:

- the EHS does not identify households containing a disabled child;
- as the survey and interview work carried out for this research indicates, some disabled people do not realise fully the extent to which they may need accessibility features, or may be reluctant to ask for them;
- numbers are likely to grow substantially over the coming decades as the older population and the working age disabled populations grow.

Subject to these points, the EHS identifies 29% (**6.3 million**) households as containing at least one disabled adult. If we restrict this to working age households, there are **3 million** who include a disabled member (21% of working age households).

The EHS module on accessible features asks, ‘Does your long standing illness, disability or infirmity make it necessary to have adaptations¹ in your home?’ We classify all households containing one or more adults who answer ‘yes’ to this question as having a **need for accessible housing**. In total there are **1.8 million** such households, representing 29% of the total; and amongst working age households there are **580,000** households having this need (19% of working age households with a disabled member).

There are many different types of accessibility features, and the (English) Building Regulations² set out a range of these features in three ‘categories’, indicating different levels of accessibility. In this report we have aligned reported needs into those which are likely to be met by the features required in the optional access requirements, and those which cannot easily be correlated. Following discussion with Habinteg and Papworth Trust we have devised a list of the accessible features as described in EHS that we included in the ‘**needs Building Regs 2/3**’ group, which is set out in Table 1. This represents a standard that addresses the most significant needs. This is necessarily something of an approximation. There are requirements of Building Regulations categories 2 and 3 that are not reflected in the EHS list, and the items in the EHS list are not always expressed in a way that neatly corresponds to the Building Regulations requirements. We can, however, be reasonably confident that a household that identifies a need for any of these accessible features is going to require significant accessibility features in their home.

¹ In this report we use the expressions ‘accessible housing’ or ‘accessible features’ where the EHS uses ‘adaptations’

² M4(1), M4(2) and M4(3) of Schedule 1 of the Building Regulations 2010, as amended

Table 1: Accessibility features listed in EHS used to define a need for accessibility at the level of Building Regulations categories 2 or 3

<p>Bathroom/kitchen special toilet seat/raised toilet or other aids to help use the toilet shower replacing bath new bath or shower room bath / shower seats or other aids to help in the bath/shower graduated shower floor other specialist fittings (door handles, window catches)</p> <p>Other internal hoist entry phones internal ramp wide doorways stair lift</p> <p>External wide gateways wheelchair accessible parking space (on plot) wide paths rail to external steps external ramp</p>
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Note: a complete list of the EHS categories (showing those included here) is at Annex 7

Within the group of 580,000 working age households with a need for accessible housing, we can also identify that just under half (45%, or 260,000) have needs that would be likely to be met if their home conformed to Building Regulation Category 2 or 3 standards.

These figures help us understand the scale of need for accessible housing within the disabled population as a whole, with their very widely ranging types of impairment and levels of need.

The scale of needs this reveals is as follows:

- **1.8 million** (one in twelve of all households) have a need for accessible housing. Of these, **0.7 million** households (around one in thirty of all households) have more significant needs corresponding roughly to Building Regs 2/3;
- 1 in 3 older households containing a disabled person and 1 in 5 households containing a disabled person of working age have identified accessible housing needs;
- although the *rates* of disability and need for accessible housing are higher among the older population, because the size of the working age population as a whole is so much larger, in absolute terms, working age households make up a significant proportion of households in need of accessible housing. Using the broad definition of need, working age households make up around one-third (580,000) of those in need of accessible housing.
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Table 2: Housing and accessibility needs in England

Housing and accessibility needs		All households	Working age households	Older households
All households	All households	22.1 million	14.5 million	7.6 million
	Households with a disabled member	29%	21%	43%
		6.3 million	3.0 million	3.3 million
Households containing a disabled person	Has accessible housing needs (broad definition)	29%	19%	37%
		1.8 million	0.58 million	1.2 million
Households with accessible housing needs	Needs would be met by Building Regs category 2/3	40%	45%	37%
		0.72 million	0.26 million	0.46 million

Source: English Housing Survey 2011-12. Population based on Census 2011 estimate of 22.063 million households in England in 2011, of which 14.473 are working age and 7.590 are older households.

Next we can interrogate the EHS further to identify which of the 1.8 million households with needs for accessibility features have had those needs **already met**, and another group who have at least some unmet needs. Here we look at both all households and working age households. Although we are particularly interested in the impact of not having features on the ability of working age households to participate in the labour market and in their level of income, the question of unmet need is important to all households with a disabled member. In fact many disabled household members are near retirement age, and older households will often be continuing to live in homes they have occupied for some years, including years when they have been of working age.

Of the 1.8 million households with an identified need for accessible housing, **around one in six (some 300,000) report unmet needs**. Homing in on those who need features that easily correspond to Building Regulations categories 2 or 3, 30% (around 200,000 households) have unmet needs.

Of the 580,000 working age households with an identified need for accessible housing, 25% (around **140,000**) report unmet needs. 40% of working age households whose needs correspond to Building Regulations category 2 or 3 range (around 100,000 households) have unmet needs. So proportionately more working age households lack the accessibility features they need than older households, for whom the corresponding percentages are 12% and 22%.

The qualitative elements of the research add some helpful insight to these findings from the official data.

First, these figures are likely to be an underestimate of the true scale of need for accessible housing features because many people who would benefit from accessible features may not be aware of the ways in which these features could help them in their daily lives, or they may regard expensive or extensive changes to improve accessibility as 'out of the question' – and consequently answer 'no' in either of these cases (reflecting a similar point made about hesitancy to identify needs amongst people interviewed in this research). Evidence from the in-depth interviews illustrates and supports

this point. Several interviewees indicated that they had not taken any steps to address needs they had, either because they believed no help was available, or they stoically accepted having an unmet need – for example, after discussing in detail the types of need they had, two comments were:

“No we did not approach social services to fit the rails. It’s the great British attitude, just get on and do it” (woman, mid 40s, about her daughter’s needs)

“When it’s worse, we just take more pills and get on with it” (couple, 50s, both with mobility problems)

Second, most households have a mix of met and unmet needs, and some unmet need can be relatively minor in scale but with major impact. Three in five of the respondents to our survey who have already had some needs met say they still have some unmet needs which affect them adversely. Evidence from the in-depth interviews sheds more light on this. Many of those interviewed have some of the access features they need, often major works which fall under category 2/3. Nevertheless they still have unmet needs, some of which may be seemingly small but with significant impact on the quality of their lives. These small issues are varied – for example fitting new or replacement handles to an already adapted bath or shower, a better designed car parking space, additional rails for balance or safety, repairs to adapted bathroom equipment already fitted, further adjustments to kitchen fittings or equipment, or replacing defective double glazing. In some cases, interviewees said that these missing ‘details’ were significant barriers to obtaining work. They could also be very important in terms of improving the disabled person’s quality of life, as the following case study illustrates.

Case study: crucial missing features

Alice is a single woman in her late 40s. She has arthritis, which has been progressive for some years and has become much worse in the last two years.

She lives in a private rented flat which already had wide doors and large rooms when she moved in, and is on one level. Social services then put in a wet room for her. This made a great difference to her quality of life – it meant she felt safer and more in control, could do her daily activities more easily and with less need for help from carers and social services. But she still needs additional features. One is for a set of handles in the wet room she has to allow her more easily to make use of the shower; the other is for ramps so she can get in and out of the house in the mobility scooter she bought with her own money.

She has asked the landlord for ramps to get her scooter in and out but *“he is a busy man and does not really have the time to deal with this”*. Interestingly she has not asked social services about the ramp and thinks she might now do this after we discussed this a little.

She is no longer able to work due to the arthritis. Up till about two years ago she could have worked if she had been able to get out and about, but now it is much worse and sometimes she just can’t get out of bed.

She is not interested in moving. She is settled where she is and has many of the features she needs so moving would be difficult and a big disruption. All she want is *“the small things done that would make such a difference – shower handles and a ramp for my scooter”*.

Third, needs and housing choices change over time. Progressive illness or age means people need additional housing features. Or the needs of other family members change. Evidence from the in-depth interviews included people who said they might wish to move at a later time – in most cases when they either retired or their condition worsened. Others were intending to move when their children left home after finishing school. Three owners intended to sell up and move to social housing adapted bungalows as their needs became greater.

Implications and recommendations

Substantial numbers of people do not have the accessible housing or features they need. Many may feel they can only ‘make do’ rather than trying to get their needs met; others may not perceive they have a need; and some may have a feature which is in disrepair, or does not fully meet their needs. Such changes may be small scale but crucial to quality of life or employment opportunities. Although this report concentrates on the provision of major accessible features to new or existing homes, one emerging issue is the parallel need to ensure these features are in good repair, and are suitably adjusted to meet the precise needs of the disabled person. This might require some form of local fund and ‘handyperson’ service to ensure these smaller and more easily addressed needs are addressed.

We have also set out more specific recommendations around possible improvements to the survey data collected, in Appendix 1. The English Housing Survey is the best platform on which to build national data collection efforts on accessible housing. A number of relatively minor changes would further enhance its usefulness:

- identification of households containing disabled children, as well as adults;
- alignment of the special module on accessible features with Building Regulations definitions of accessible housing;
- collecting more information on whether households face restrictions in moving house due to lack of accessible alternatives to their current accommodation;
- collecting more information on households saving for a deposit.

The impact of having unmet needs

This section deals with the impact on disabled people of living in a home where their need for such a feature is not met. These impacts include economic impacts such as working patterns, income, assets, as well as on wider quality of life. More specifically, we look at how far unmet need for accessibility features, or lack of access to suitable housing options, prevents disabled people from working.

Income and wealth

Our starting point is the more general information which emerged in the literature review on the effects of disability on income and employment more generally. A recent CASE report³ indicates that in 2013 disabled people who are unable to work⁴ were, on average:

³ Hills, J. et al (2015) *Falling Behind, Getting Ahead: The Changing Structure of Inequality in the UK, 2007-2013*. London School of Economics and Political Science, London

⁴ More technically ‘those of working age classed as both work-limiting and Disability Discrimination Act disabled’

- less than half as likely to have degrees as those not classed as disabled;
- almost three times as likely to have no or only low level qualifications;
- less than half as likely to be in employment than those who were not disabled (only 37% in employment);
- had 21% less non-pension wealth (savings and similar assets) in 2010-12.

Disabled men who were in work were likely to receive median hourly wages 16% lower than men who were not disabled, and disabled women similarly earn 11% lower than women who were not disabled.

These figures describe all disabled people. This report takes the analysis further by examining the many differences between groups of disabled people, particularly those who need accessible housing features, and those of different ages and tenures, by creating a more detailed breakdown of the data in the EHS.

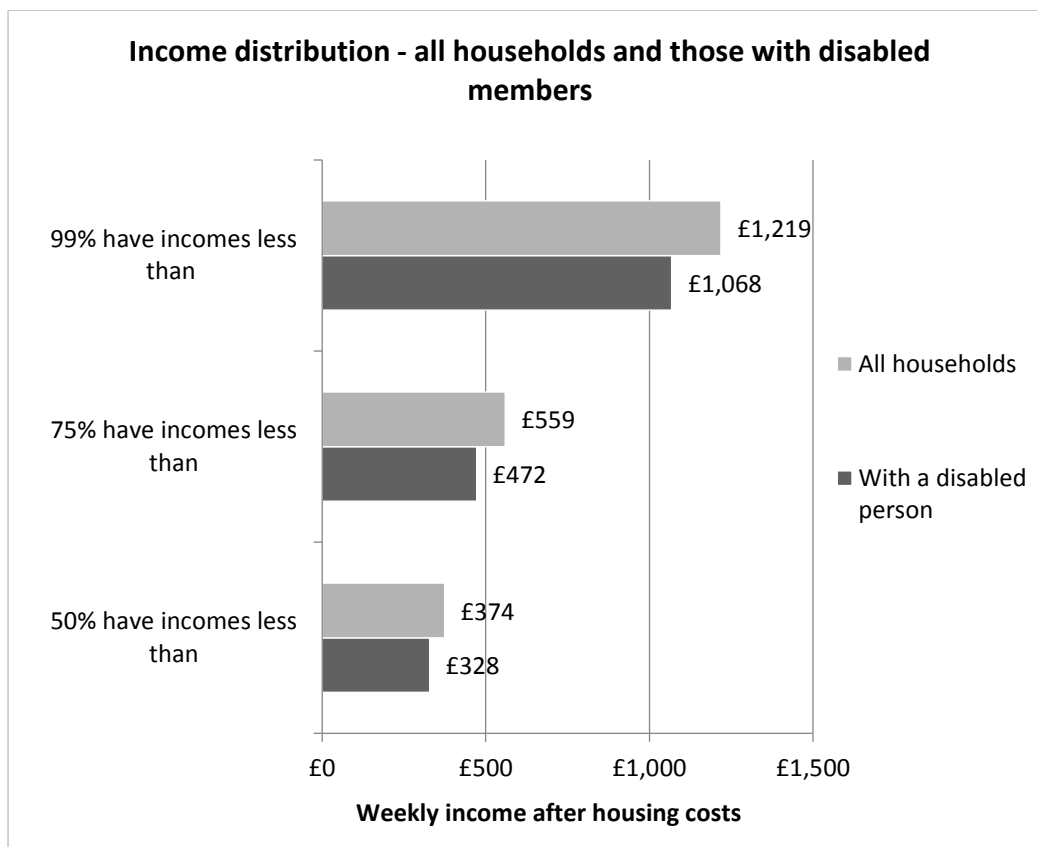
Income statistics are often presented as either 'before housing costs' (BHC) or 'after housing costs' (AHC). The latter (AHC) figure means the household income left after paying rent or mortgage and reflects the different costs of housing across the country (particularly the North-South divide), and which can significantly reduce other income for other basic expenses like food. This distinction can in some circumstances provide more helpful comparisons of incomes, so we mainly use after housing costs comparisons in this report.

In general:

- households containing a disabled person have a lower average (median) after housing costs (AHC) income than all households (£328 per week compared to £374);
- there are similar median incomes if we compare households with a need for accessible housing⁵ (£333 per week) to other households containing a disabled person (£330 per week);
- when we compare the incomes of the higher income households in each of these groups, however, bigger differences emerge. The top one-quarter of households with accessible needs have incomes of £458 a week or more, the top one-quarter of households containing a disabled person have incomes of £472 or more, but the top one-quarter of all households have incomes of £559 or more;
- this differential is continued further up the income scale as well, as shown in the summary Figure 1 below.

⁵ whether the need is broadly or narrowly defined

Figure 1: Comparative income distribution of households with disabled members



Source: English Housing Survey 2011-12

This shows that, although households which include disabled people tend to have lower incomes than the English average at all parts of the income distribution, significant numbers do have high incomes.

40% of households containing a disabled person have incomes in the top half of the population wide income distribution, as do **33% of working age households** containing a disabled person.

Of people with an identified need for accessible housing (in the broad sense), **39%** have incomes in the top half of the population income distribution, or around **700,000** households.

The median income of all owner occupier households is £448 per week, and around one in four (around **480,000**) households with a need for accessible housing in the broad sense have incomes at or above this level- indicating a potential to afford owner occupation.

EHS shows levels of savings in bands, rather than precise amounts. Just over a quarter of all disabled households (27%) and just under one in five households with accessible housing needs (19%, approximately 360,000) have savings and investments worth £12,000 or more.

Impact on working

In this section we consider the employment outcomes for disabled people (moving away from our consideration of disabled households above, since individuals are employed or not, but households may have needs for accessible features in the home). EHS shows that:

- **37%** of disabled working age people **are employed**⁶, and 40% are either unemployed or not working due to sickness or disability (the remaining 23% are not working for other reasons);
- **11%** of disabled working age people who have a need for accessible housing (whether or not that need is met) **are employed** – less than a third of the rate of employment amongst disabled working age people as a whole. In addition 70% are unemployed or not working because they are sick or disabled, almost double the rate of the wider group.

We also compared the employment rates of disabled working age people who on the one hand either do not need accessible housing, or who have their needs met, and on the other hand similar disabled working age people who have unmet needs for accessible housing. In looking at this question we need to take account of other characteristics which may have an independent association with employment. These include age, gender, type of impairment, household composition, educational qualifications, savings, and geographical region. Allowing for these factors, people with unmet need for accessible housing are **four times more likely to be unemployed** or not seeking work because they are sick or disabled than those who needs are met or who are disabled but do not need accessible housing.

A similar association is observed among owner-occupiers: working age owner-occupiers with unmet need for accessible housing are **six times more likely to be unemployed** or not seeking work because they are sick or disabled compared to working age owner occupiers whose needs are met or who are disabled but do not need accessible housing. However, this owner occupier model is based on a smaller sample size and is not as robust as the model for all disabled adults of working age.

The Public Knowledge survey also asked questions specifically about the impact on working. About one in five respondents indicated that their unmet needs had affected their ability to work, train for a job, or move to an area where they might find work. Specific comments addressed a range of issues; sometimes these were around general wellbeing:

“I’m so exhausted during the day it would be impossible for me to work a full day shift. If I had more adaptations in the house I feel that this would save me energy which I can use elsewhere, i.e. work” (woman, 45-54)

“Generally it sets us back on some things and I believe if they were available it would have speeded up my recovery and maybe going back to work” (man, 25-34)

Sometimes the problem was more practical, often around transport:

“There are problems getting to the car in bad weather, and it’s a struggle if I need to put something in the car” (man, 55-64)

⁶ We include part or full-time employment as ‘employed’. We include those actively seeking work and those not seeking work because they are long term sick or disabled as ‘unemployed’. The third category is those who are out of work for other reasons (for example retired or in full-time education). This approach is also used in the analysis of the survey.

One case study from the in-depth interviews helps illustrate these relationships between unmet need, work, and wellbeing:

Case study: Trying to be work ready

Carol is a woman of 47, a home owner with her husband and 15 year old son, who has a longstanding spinal condition which deteriorated recently. She finds it hard to use the bathroom and needs grab rails and more accessible bathroom furniture. They moved 12 years ago to a bungalow. The house is on one level but at the bottom of a steep hill. Getting a more accessible kitchen really helped her to feel in control, and they can now have people round and she can cook for them. Her husband works, but is on a low wage which is not enough to afford the extra adaptations they need, but more than will allow Social Services to provide these for them (in her view).

She used to work as a special needs teacher in a local school but could not continue because of her pain and the physical demands of the work. She wishes, however, to work. She recently found a part time flexible catering job near her home. However, if her home were improved in ways which would make her less vulnerable to pain she feels she could move to a more regular job for which she is qualified.

Wider impacts on quality of life

Reality is in fact, of course, more complex than a simple distinction between ‘met’ and ‘unmet’ need, as the qualitative work has explored. Many disabled people have needs which have been partially met, some note that previously met needs re-emerge as problems due to disrepair or progression of an illness or impairment makes previous accessibility features no longer adequate, and some delay fully addressing their needs until a major life event occurs, such as children leaving home or retirement. Nevertheless the evidence from our research indicates a range of important positive benefits from accessibility features and significant disadvantages from continuing unmet need.

One point emerging in the survey and in-depth interviews relates to the importance of dignity, control, and social contact. We were initially alerted to this through the literature review. Several studies provide evidence around the importance to disabled people of retaining dignity, minimising barriers to independence, being proud of their home and being able to take part in society. Not only did the provision of additional accessibility features addressing these issues appear to have impact in improving their quality of life, but also there was a relationship between having choice and control over the provision of these additional features and better outcomes following their provision⁷. There is less literature around met and unmet housing need and related benefits for wider social inclusion, employment outcomes and social participation outcomes. Work we have done for this report using data from the DWP Life Opportunities Survey (LOS)⁸ does suggest, however, that unmet need for adapted features is linked to lower incidence of social contact.

Turning to the information from the qualitative parts of our research, around half of survey respondents cited benefits of met needs in terms of being more in control, half cited feeling safer, and about a quarter mentioned feeling more pride in their home or having a better social life, and a similar proportion also cited improved health and wellbeing.

⁷ e.g. Heywood (2004,2005a)

⁸ Office for National Statistics (2014) *Life Opportunities Survey: Understanding Disability*. HMSO, London.

Typical comments included:

“The main benefit is freedom” (woman, 35-44)

“Having these works in place makes everyday life easier” (man, 35-44)

“I am now able to work from home, and have more money” (man, 45-54)

In many cases the benefits were direct – for example being able to take a shower in an accessible bathroom, or get upstairs using handrails or a stair lift. People with mobility problems also often cited needing less assistance from family or carers as a major benefit. Those with a met need for accessible parking often cited benefiting from getting out of the house, having a better social life, and being less tired.

Turning to unmet needs, independence and dignity emerged as a major area of concern. Typical comments included:

“I have to rely more heavily on family, friends, and carers to assist me in carrying out everyday tasks that I could do myself if the adaptations I need were provided or the adaptations that have failed were repaired or replaced” (man, 55-64)

“I have the feeling of being trapped in my own home” (man, 55-64)

“I am unable to have a social life” (woman, 55-64)

Sometimes the invisibility of an impairment can become an issue, as for one in-depth interviewee with an unusual but very serious heart condition and unmet housing needs:

“I’m not allowed to drive but it’s really embarrassing when he drives me to the supermarket and we park in the disabled spaces – people often look at us and comment negatively as I look like a healthy 20 year old” (woman, 20s)

Implications and recommendations

Despite the fact identified in the previous section that 40% of households including a disabled person are in the top half of income distribution, on average, the incomes of these households are lower than incomes for the population as a whole.

Households with an unmet need for accessibility features (particularly owner occupiers) emerge as significantly less likely to be employed. The reasons for this should be explored further. Increasing choice, dignity, and independence should also be seen as vital parts of a strategy to assist disabled people to move towards work, as well as improving their personal and social wellbeing.

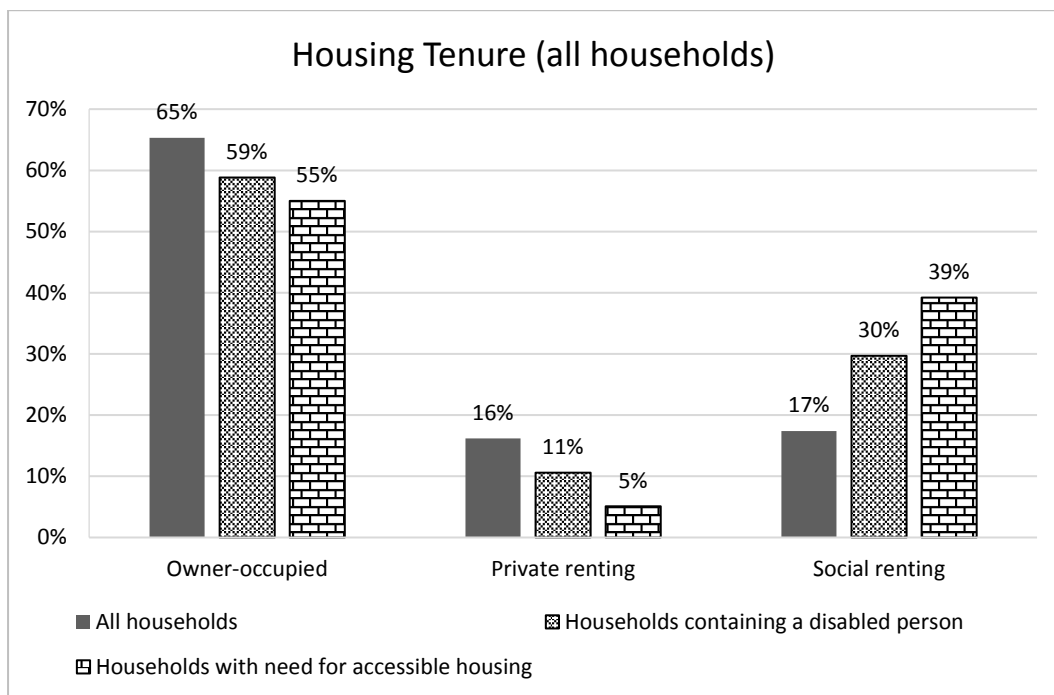
Housing choices

This section deals with the impact of the above factors on housing choices, including what proportion of households containing a disabled person are currently, or might be in a position to become, owner-occupiers.

Current tenure of households

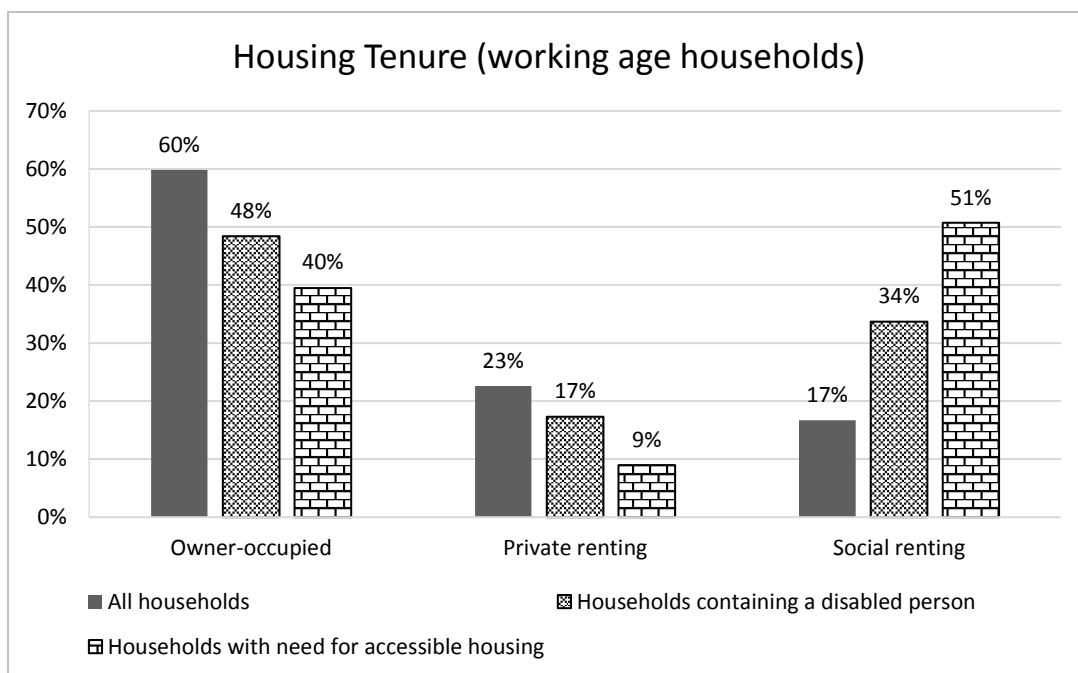
The tenure patterns of all households and of working age households are set out below, showing the comparative position of households containing a disabled person and households with need for accessible housing.

Figure 2: Tenure patterns for all households



Source: authors' calculations using EHS 2011-12

Figure 3: Tenure patterns for working age households



Source: authors' calculations using EHS 2011-12

These figures indicate that:

- amongst **all households with a disabled person**, owner occupation is the dominant tenure (59%, or approximately **3.8 million** households) compared to 11% in private renting, and 30% in social rented housing. Ownership is only slightly under the rate for the population as a whole (65%).

Amongst the narrower group of households who need accessible housing, 55% (**approximately 1 million**) are owner-occupiers;

- comparing **working age** home owners to the overall population, fewer households containing a disabled person are owner occupiers (48% or approximately **1.5 million**) than in the working age population as a whole (60%); and 40% (or **approximately 230,000**) households with a need for accessible housing are owners;
- social housing accommodates **three times** the proportion of **working age households in need of accessible housing** than for population as a whole (51% compared to 17%) – which is perhaps not surprising given the statutory housing need priority given to this group, and the extent of specialist housing provision in the social housing sector. The corresponding levels of social renting for the wider group of **working age households containing a disabled person** are 34%, compared with 17% for the general working age population;
- private renting accommodates a much smaller proportion of **households with a need for accessible housing** (5%) than for the population as a whole (16%). For **working age households in need of accessible housing** this proportion is higher (9%, compared to 23% of all working age households), although for **households containing a disabled person** the 17% who live in private rented accommodation is much closer to the 23% of the working age population as a whole.

The picture that emerges from these figures, as well as the information on income in the previous section, is that there are significant numbers of households containing a disabled person and households with accessibility needs that are, or have the potential to become, owner-occupiers.

More specifically, of households with an identified need for accessible housing:

- 1.0 million of these households are already owner-occupiers, of which 230,000 are working age households;
- 700,000 have incomes in the top half of the population income distribution;
- 480,000 households have incomes at or above the median income for all owner-occupied households;
- 360,000 households have savings of £12,000 or more.

Qualitative evidence around choices

The qualitative research provides further insights into housing choices being made by disabled households. Faced with unmet need, the options households consider include coping as best they can (*“when it’s worse, we just take more pills and get on with it”*), through seeking grants or other assistance to get the needs met (*“battling with social services”* or seeking help from the landlord), through seeking to change tenure (mainly applying to the local authority for nomination to a housing association, which was a frequent option considered by in-depth interviewees, including some current owner occupiers) to buying a new property which was fully adapted.

Each of these had its own complexities. It was clear from some of the in-depth interviews that the local authority area in which the respondent lived and the priority the authority gave to providing accessible features was a key aspect of the likelihood of getting assistance; and that the cuts to local government funding were beginning to bite in relation to funding these features. In about a quarter of interviews a clear view was expressed by interviewees that it was no longer worth trying to get the council to fund anything, and a surprisingly high proportion of interviewees (about a third)

stated that they simply assumed that no help was available so had not applied, either to the council or to any other source of possible assistance or advice (such as a CAB). For example:

“We didn’t think they could help because of the cuts and all that – so didn’t ask”
(man, 40s, needing rails that paid for himself)

Local authority retrenchment is occurring despite the fact that the literature review indicated clear evidence around the costs and benefits of accessible features⁹. Major net benefits demonstrated from well-planned accessible features include:

- reducing costs of residential and home care;
- preventing accidents, admission to hospital, residential care, other medical treatment, and avoidable health care costs for carers;
- providing more cost effective assistance than other types of support which were less helpful to the disabled person.

Nevertheless the literature¹⁰ suggest problems with disparate and confusing funding sources, delays and local variation in approvals and delivery, and concerns about waste due to lack of user consultation.

There is also an issue about existing owner occupiers making their own improvements. Sixty per cent of disabled people responding to the large qualitative survey were owner occupiers, in line with the predominance of owner occupation indicated above; and half of the in-depth interviews were with home owners. In general, during the in-depth interviews we found owner occupiers to be much more likely to say they themselves had paid for specific features to be installed. Nevertheless a small number of these owners were hard pressed to pay the mortgage and daily living costs, often where their impairment had led to reduced working hours or unemployment; their status as owners did by no means ensure they had enough income to spare for these additional items.

We asked a question in the survey about buying a home to address need. About one in six expressed interest, although about three quarters were already owner occupiers. Their motivations were sometimes more linked to other life events than from the motivation to move as a means to address missing accessibility features – about half were younger households wanting to move to accommodate growing children; and another quarter were older people looking to downsize. This does not mean that they were not in the market for buying a house with new adaptations, but was in contrast to many of those in other tenures. Where others – mainly tenants - indicated they did not want to consider ownership the most common reason was that they were happy where they were, followed closely by those saying they could not afford it.

Evidence from the in-depth interviews also suggested that there was a range of barriers to moving in general, which extended to changing tenure. Some had spent years incrementally installing accessibility features which worked reasonably well (see case study below); some did not want to leave their neighbourhood where family and friends provided support; as noted above in the ‘needs’ section some intended to move in due course to a smaller or more adapted property if their condition worsened or when they became older and moved to a ‘retirement bungalow’ or a similar property. The overall impression from these discussions was that changing tenure or moving house

⁹ e.g. Heywood and Turner (2007)

¹⁰ e.g. Jones (2005)

would be part of a wider life change, and its timing was uncertain but based on other pressures than simply housing choice. Nevertheless, and very importantly, there are many people, with young families or looking for a retirement home, who would be in the market for accessible properties to buy if they were in the right place, and quite possibly even more interested if they had control over the type of accessible features which were provided before they moved in. In other words, disabled people have the same interests and motivations as other housing consumers. They simply have a range of distinct needs which they look to secure in their homes.

Case study: Too much in place to move

Judy is a young adult wheelchair user. She lives with her partner and child in an owner occupied property which they bought a year ago. She wants to go to work but is prevented by an unreliable lift in her apartment block and the absence of some further adaptations in her home – more space in the kitchen, adjustable work surfaces, automatic cupboard doors and similar items

When they moved in social services put in a lot of adaptations, including some bathroom and kitchen features. Since then they have returned to make repairs or alterations.

However, the house is not fully wheelchair-accessible. It lacks appropriate internal doors, paths, parking, and a reliable lift – all of which restrict her mobility and independence. The kitchen surfaces need to be adjustable so she and other family members can use them.

To be able to work, she needs a combination of the features above, and also some additional help from a carer.

The in-depth work also found many people, of all tenures, who anticipated moving to social rented housing meeting their accessibility needs when they grew older. This anticipation covered all tenures, but the main concern expressed was location and in particular retaining their network of supportive friends and family.

Recap on main findings

At the start of this report we considered three questions. The first was the extent of need for housing which has accessible features (for example a stair lift), and the impact on disabled people of living in a home where their need for such a feature is not met. The evidence indicates that:

- at least **1.8 million** households in England have an identified need for accessible housing, of whom **580,000** are working age;
- at least 1 in 6 households with an identified need do not have all the accessibility features they need (**300,000** households, including **140,000** working age households). Working age households are less likely to have the features they need than older households;
- having needs for accessible housing met makes all the difference in terms of feeling in control, safer, having a social life, and health and wellbeing;
- **unmet needs** often have a direct impact on ability to carry out everyday tasks, on feeling helpless and dependent on the help of carers or family, and on social isolation.

Second we examined how far unmet need for accessibility features, or lack of access to suitable housing options, is associated with disabled people not being in work. Evidence indicates that:

- people with unmet need for accessible housing are estimated to be **four times more likely to be unemployed or not seeking work due to sickness/disability** than disabled people without needs or whose needs are met, after taking into account differences in other characteristics between these groups.

Third we examined the impact of the above factors on housing choices, including what proportion of households containing a disabled person are currently, or might be in a position to become, owner-occupiers. Evidence indicates that:

- **1.0 million** households containing a disabled person with a need for accessible housing are already owner-occupiers, of whom **230,000** are of working age;
- 40% of households containing a disabled person (**700,000**) have incomes in the top half of the national income distribution, and **360,000** have savings of £12,000 or more;
- 1 in 4 households needing accessible housing (**480,000**) have incomes above the median income of all owner occupier households, suggesting a significant capacity to become owners.

We have also shown that people with these needs are three times more likely to be in social housing, and from the qualitative research it appears that some owner occupiers with accessible housing needs intend to move into the social rented sector later in their lives.

More generally, there is qualitative evidence that there are major barriers to moving home related to having supportive friends and family locally, as well as previous investment in the current home; and that intentions to move can often be linked to wider life events such as 'empty nesting' or starting a family, as well as to the progress of the impairment and its impact on daily life. In addition evidence from the literature suggests that increasing choice over the features in any new or existing home tends to increase the benefits of and satisfaction with a home with additional features. Increasing the level of involvement and choice of households in relation to features a new home of any tenure would therefore seem appropriate.

In addition, moving home is the right answer for some, but not others. The research shows that, in some cases, straightforward repairs or additional features may make a significant difference to the quality of life of disabled household members. So meeting the housing needs of disabled people is likely to involve a mix of improving access to and the delivery of accessible features in people's current homes and ensuring more properties purpose-built for high levels of accessibility are built.

Appendix 1: Accessible homes—quantitative analysis of existing nationally-representative data sources

Introduction

The objective of this phase of the project was to quantify the potential current demand for accessible housing, especially privately-developed accessible housing. To this end, we identified in discussion with Papworth Trust and Habinteg three key questions:

1. How many households have met and unmet needs for accessible housing?
2. What proportion of these households are, or might be in a position to become, owner-occupiers?
3. To what extent is unmet need for accessible housing associated with worse employment outcomes?

In many cases, it makes sense to compare the population with met and unmet needs for accessible housing with the broader disabled population (not all of whom need accessible housing), or with the population as a whole.

Through this investigation, we were also interested to establish the limits of what can be gleaned from existing data, and to make recommendations for new national data collection efforts on this topic.

Data and methods

Sources

Administrative data sources such as local authority returns are useful because by definition they provide local area breakdowns but they do not cover all households (for example, those in owner occupied housing who have not received assistance from the local authority), and they contain very little information about household socio-economic characteristics. Nationally representative household surveys are a better source for our purposes. Unfortunately, many sources, such as the Family Resources Survey, contain a wealth of information about disabled people in general (usually defined as people experiencing a limiting, long-standing illness or impairing condition: roughly equivalent to the Disability Discrimination Act definition), but do not facilitate the separate identification of disabled people with needs for accessible housing. For our purposes, the two best sources are the English Housing Survey (EHS) and the Life Opportunities Survey (LOS).

A comparison of the key features of the two sources is shown in Table 3. On the basis of this assessment and preliminary analysis of both surveys, we concentrated our detailed analysis on EHS and it is this source that is used in the results presented below. The detailed module on housing accessible features was last conducted in 2011-12. Another version has been fielded more recently, but the data are not yet available. Since 2011-12, it is likely (above all, because of population ageing) that needs have grown faster than the availability of accessible housing, so if anything the scale of demand for accessible housing is likely to have grown.

Table 3: Key nationally representative data sources on needs for accessible housing

	English Housing Survey	Life Opportunities Survey
Main sponsor	Department for Communities and Local Government	Department for Work and Pensions
Geographical coverage	England	Great Britain
Sample size	13,800 households	36,000 adults
Specialist module	Housing accessible features (2011-12)	Housing accessibility (2010-12)
Key strengths	Detail on met and unmet need for accessible housing	Detail on social inclusion, including employment
Limitations	Little on social inclusion, though does have employment status	Cannot identify accessible housing needs already met, though can identify unmet needs

Definitions

The social model of disability distinguishes between impairment - a physical or mental condition - and disability – the disadvantage experienced by people with impairments as a result of the lack of accessible features and accessibility in the physical, social and economic environment in which they live. LOS is designed in accordance with the social model, but other household surveys do not use these definitions consistently.

EHS uses a ‘**limiting long-standing illness or disability**’ (LLID) definition of disability, and identifies 29% of households as containing at least one disabled adult. This is close to the estimate in the Family Resources Survey (FRS), which identifies 30% of families in the same category, although it is lower than the corresponding estimate in the specialist disability survey LOS¹¹.

The EHS module on accessible features asks, ‘Does your long standing illness, disability or infirmity make it necessary to have adaptations in your home?’ We classify all households containing one or more adults who answer “yes” to this question as having a **need for accessible housing**. This is likely to be an underestimate of the true scale of need for accessible housing features because many people who would benefit from accessible features may not be aware of the ways in which these features could help them in their daily lives, or they may regard expensive or extensive changes to improve accessibility as ‘out of the question’ – and consequently answer ‘no’ in either of these cases (reflecting a similar point made about hesitancy to identify needs amongst people interviewed in this research). This question is followed by two sets of more detailed questions, one on the type of accessible features that you need (whether or not you actually have them), and one on the accessible features that you have. A complete list is given in Appendix 1. Comparing these two sets of responses allows us to identify one group of households whose identified **needs are already met**, and another group who have at least some **unmet needs**. Thus the ‘need for accessible housing’

¹¹ Note that the FRS figure is for families (‘benefit units’ in FRS terminology), whereas the EHS figures is for households.

group can be split into those whose needs are fully met, and those who have some remaining unmet needs.

Finally, we drill deeper into the ‘has a need for accessible housing’ group to identify those with the most significant needs— that is those whose needs would be met by properties conforming to Building Regulations categories 2 or 3¹². (Initially we differentiated between categories 2 and 3 but there was not a sufficiently large sample requiring category 3 to analyse them separately.) Box 1 lists the accessible features as described in EHS that we included in the ‘**needs Building Regs 2/3**’ group, following discussion with Habinteg and Papworth Trust. This list is also used to inform the discussion of ‘Building Regs 2/3’ in Part Three (qualitative surveys). This is necessarily something of an approximation. There are requirements of Building Regulations categories 2 and 3 that are not reflected in the EHS list, and the items in the EHS list are not always expressed in a way that neatly corresponds to the Building Regulations requirements. We can however be reasonably confident that a household that identifies a need for any of these accessible features is going to require accessible housing. Once again, this group can be split into those whose needs for accessibility of this kind are met and those whose needs are unmet.

Table 4: Accessible features at Building Regulations level 2 and 3

Accessible features listed in EHS used to define a need for accessibility at the level of Building Regulations categories 2 or 3

Bathroom/kitchen

special toilet seat/raised toilet or other aids to help use the toilet
 shower replacing bath
 new bath or shower room
 bath / shower seats or other aids to help in the bath/shower
 graduated shower floor
 other specialist fittings (door handles, window catches)

Other internal

hoist
 entry phones
 internal ramp
 wide doorways
 stair lift

External

wide gateways
 wheelchair accessible parking space (on plot)
 wide paths
 rail to external steps
 external ramp

¹²https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/506503/BR_PDF_AD_M1_2015_with_2016_amendments_V3.pdf

Methods

All results are weighted using the household weights supplied with the data to counteract sampling design and non-response bias.

Results are presented for England at the household level, unless otherwise specified.

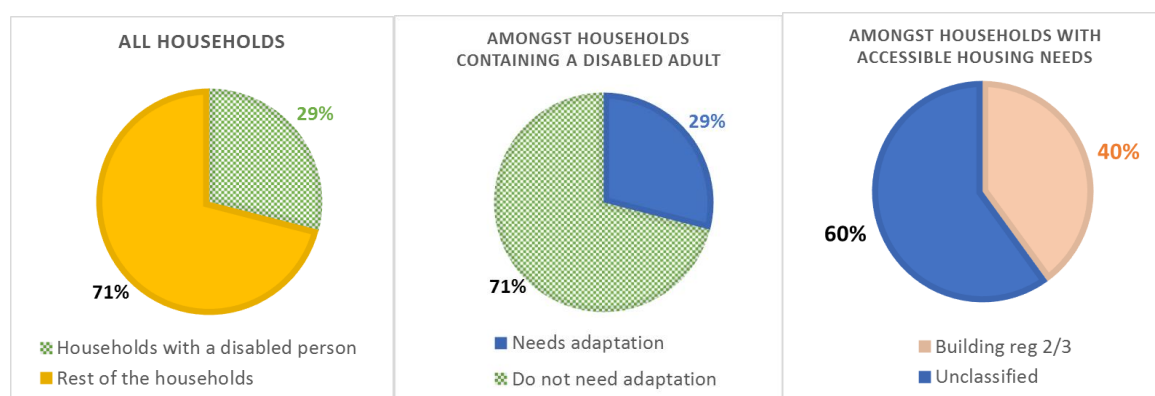
What does this tell us about unmet needs?

How many households have met and unmet needs for accessible housing?

Just under one-third (29%) of households are identified as including a disabled person in the EHS, and just under one-third of these households (again, 29%) have an identified need for accessible housing features in a broad sense. Among those with a need for accessible housing, 40% have needs that would most likely be met by housing conforming to Building Regulations categories 2 or 3.

Figure 4 summarises these results.

Figure 4: Households by need for accessible housing and extent



Source: authors' calculations using EHS 2011-12

For convenience, we call households in which the household reference person (usually the main earner, or, if no earners, the oldest person) is under 60 years of age a “working age household”, although in practice such a household may contain members with a range of ages. The proportion of disabled people rises steeply with age, so there are fewer working age households containing a disabled adult than ‘older households’ (households in which the household reference person is aged 60 or over). Table 5 gives the percentages for the types of household shown in Figure 4 – disabled, disabled with accessible housing needs, and with accessible housing needs that would be met by housing conforming to Buildings Regulations categories 2/3 – for working age households and for older households. (The final column, for all households, corresponds to the percentages given in Figure 4). It also gives estimates of the numbers in each group in the population (for England in 2011).

These findings have three implications:

- first, information about all households containing a disabled person is not likely to provide many insights into the smaller group of disabled people who need accessible housing. 1 in 5 households containing a disabled person of working age have identified accessible housing needs, and around 1 in 3 older households containing a disabled person;

- second, although the subgroup of households with a need for accessible housing comprise only a small section of all English households (8%) if needs are defined in a broad sense - and 3% of all households if needs are defined in a more restricted sense to correspond roughly to Building Regs 2/3 as outlined above– they nevertheless account for a significant *number* of households in England: 1.8 million and 0.7 million households respectively.¹³ Moreover, these numbers are likely to grow significantly over the coming decades as the older population and the working age disabled populations grow;
- third, although the *rates* of disability and need for accessible housing are higher among the older population, because the size of the working age population as a whole is so much larger, in absolute terms, working age households make up a significant proportion of households in need of accessible housing. Using the broad definition (middle row, second column in **bold** of Table 5), working age households make up around one-third (0.58 million) of those in need of accessible housing.

Table 5: Households with needs for different types of accessible housing (column percentages within each panel, and approximate numbers in the population, England, 2011)

		Working age households	Older households	All households
All households	No disabled member	79% 11.4 million	57% 4.3 million	71% 15.8 million
	Contain a disabled member	21% 3.0 million	43% 3.3 million	29% 6.3 million
	All	100% 14.5 million	100% 7.6 million	100% 22.1 million
Households containing a disabled person	No accessible housing needs	81% 2.4 million	63% 2.1 million	71% 4.5 million
	Has accessible housing needs	19% 0.58 million	37% 1.2 million	29% 1.8 million
	All	100% 3.0 million	100% 3.3 million	100% 6.3 million
Households with accessible housing needs	Needs would be met by Building Regs category 2/3	45% 0.26 million	37% 0.46 million	40% 0.72 million
	Other needs	55% 0.32 million	63% 0.77 million	60% 1.1 million
	All	100% 0.58 million	100% 1.2 million	100% 1.8million

¹³ There were 22.063 million households in England in 2011, according to the Census.

Source: authors' calculations using EHS 2011-12, . Population based on Census 2011 estimate of 22.063 million households in England, of which 14.473 'working age' and 7.590 'older' households. Numbers shown may not sum precisely due to rounding.

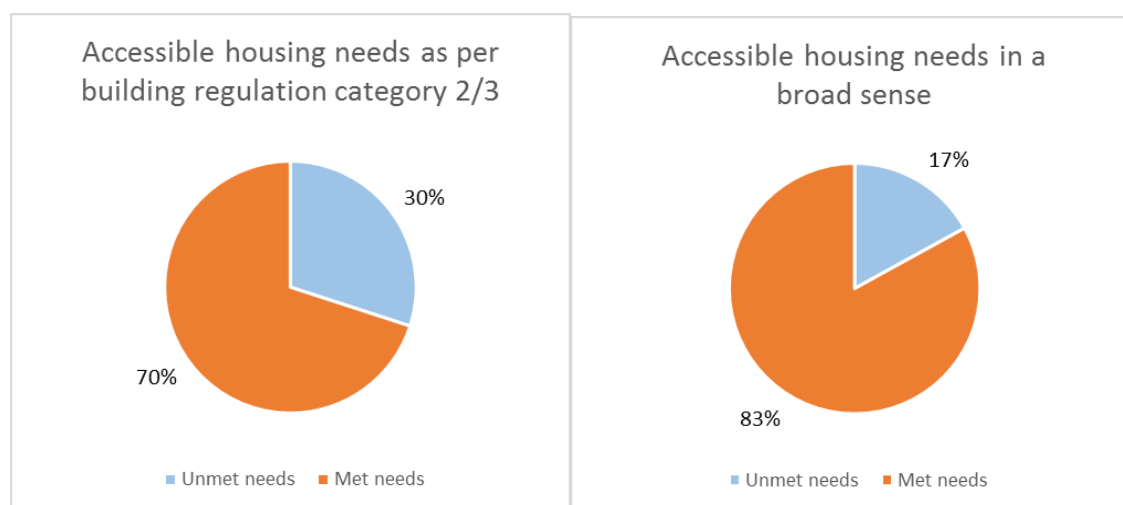
Met and unmet need

Turning now to met and unmet needs amongst the 1.8 million households with an identified need for accessible housing in the broad sense (bottom right cell in Table 5 above, in bold italics), the majority (83%) report that they have the features that they need; 17% have unmet need (see Figure 5 below).

Amongst those with an identified need for Building Regs 2/3, the level of unmet need is higher, at 30%, compared to 17% of those who have unmet needs for other accessibility features captured by the broader definition in the previous paragraph. The percentages correspond to approximately 300,000 households with identified unmet need in the broad sense (17% of the 1.1 million in Table 5), and 200,000 households with identified unmet need for housing conforming to building regulation categories 2/3 (30% of the 0.72 million in the same cell above).

These findings suggest that there is substantial 'latent demand' for accessible housing or specific accessible features: that is, households whose needs are not fully met by their current accommodation. This is supported by the findings of the new data collected by as part of this project from the 1,001 respondents in the survey panel.

Figure 5: Percentage of households containing a disabled person with accessible housing needs whose needs are met and unmet, by type



Source: authors' calculations using EHS 2011-12

What proportion of these households are, or might be in a position to become, owner-occupiers?

Housing tenure

Tables 6 (a and b) show the distribution of various groups of interest across housing tenures. Just over half of households who need accessible housing (whether broadly or narrowly defined) are owner-occupiers (55 and 56% respectively). This is a lower proportion than in the population as a whole (65%), but is still the dominant tenure. These proportions of owner occupiers correspond to approximately 3.8 million disabled owner occupier households, including 1.0 million with identified

need for accessible housing, which in turn includes 400,000 with identified need at the equivalent of Building Regs 2/3. A much smaller proportion of households with a need for accessible housing are in private rented accommodation, however: 1 in 20 (5%) compared to 1 in 6 of the population as a whole. A correspondingly higher proportion are in social rented housing.

Among the working age population, (using the broad definition) the corresponding levels are 40% in owner occupation, 51% in social housing, and 9% in private renting. Here the numbers of owner-occupiers are of course lower: 1.5 million disabled owner occupier working age households, including 230,000 with identified need for accessible housing, and this group in turn including 100,000 whose needs might be met by accommodation conforming to Building Regs categories 2/3.

Table 6: Distribution of households across housing tenures

(a) All households (column percentages)

	All households	Households containing a disabled person	Households with need for accessible housing (broad definition)	Households with need for Building Regs 2/3
Owner-occupied	65.3	58.8	55.0	56.0
Private renting	16.2	10.6	5.1	5.0
Social renting	17.4	29.7	39.2	38.2
Total ⁽¹⁾	100.0	100.0	100.0	100.0
<i>Sample size</i>	<i>13,825</i>	<i>4,358</i>	<i>1,315</i>	<i>524</i>

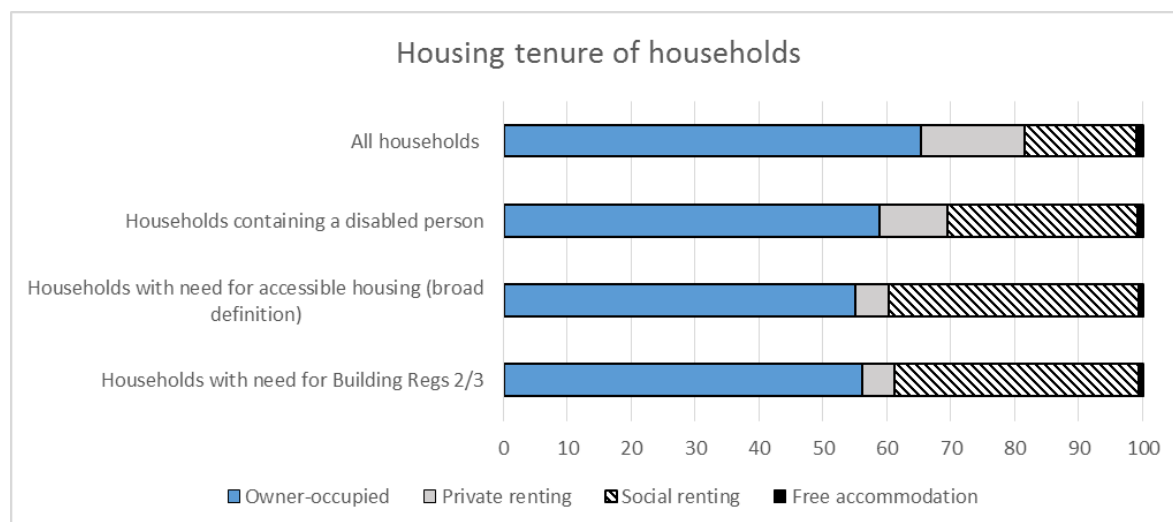
(b) Working age households (column percentages)

	All households	Households containing a disabled person	Households with need for accessible housing (broad definition)	Households with need for Building Regs 2/3
Owner-occupied	59.8	48.4	39.5	40.4
Private renting	22.6	17.3	9.0	8.9
Social renting	16.7	33.7	50.7	49.0
Total ⁽¹⁾	100.0	100.0	100.0	100.0
<i>Sample size</i>	<i>8,767</i>	<i>2,079</i>	<i>437</i>	<i>198</i>

Source: authors' calculations using EHS 2011-12

Note: column may not sum to 100 because Total includes very small numbers of households who are in free accommodation.

Figure 6: Distribution of households across tenures (%)



Source: authors' calculations using EHS 2011-12

Household income¹⁴

Households containing a disabled person have a lower average (median) after housing costs (AHC) income than all households (£328 per week compared to £374), but households with a need for accessible housing – whether broadly or narrowly defined - have similar median incomes to other households containing a disabled person (£333 and £330 respectively).

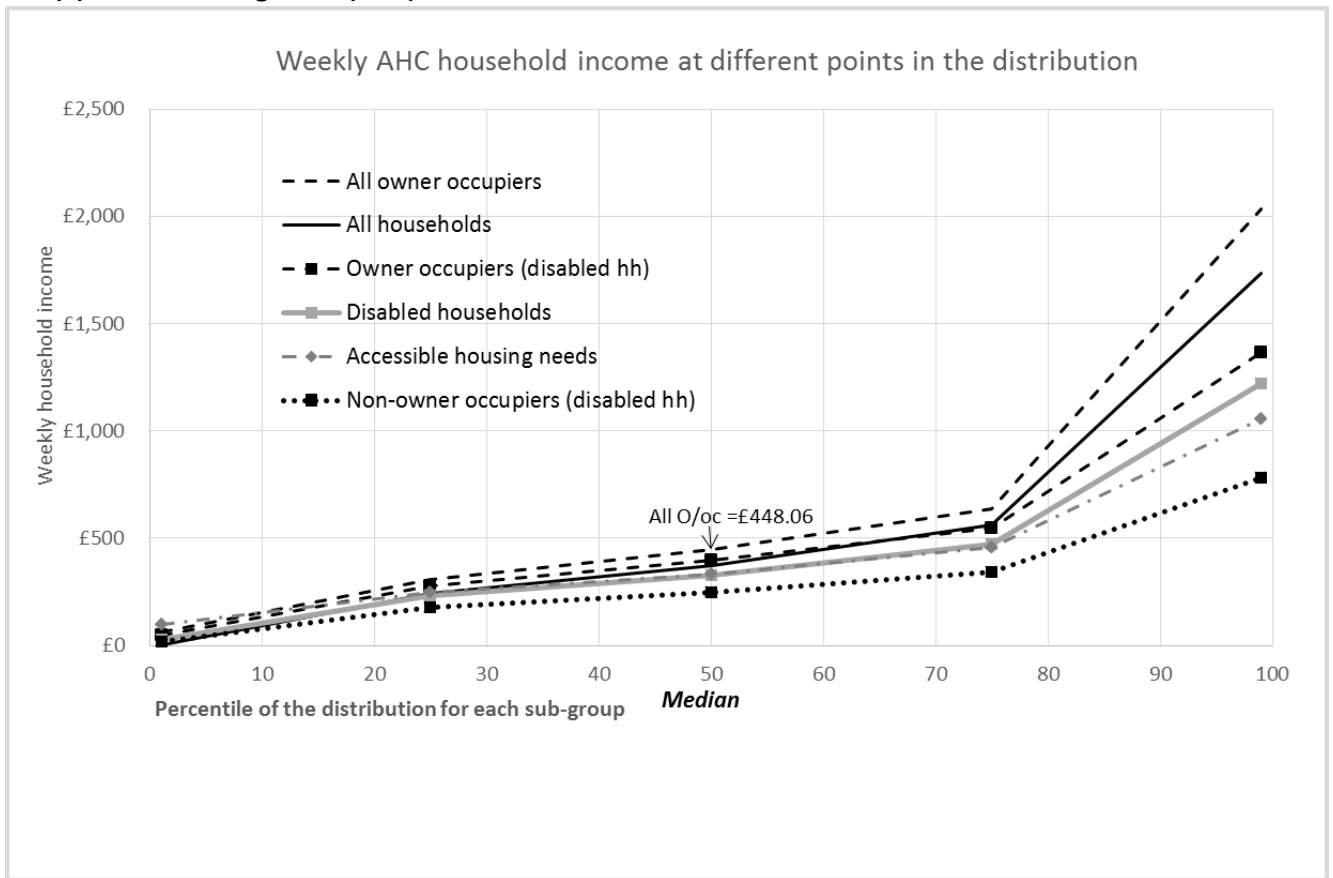
The upper half of the distribution shows a lower range of incomes among households containing a disabled person (Figure 7), whether one considers AHC (Figure 7 (a)) or BHC income (Figure 7 (b)). The 75th centile (i.e. 75% of the group have incomes at or below this level) for all households AHC is £559, while for households containing a disabled person it is £472, and for households with needs for accessible housing it is £458 (broad definition) or £466 (narrow definition). At the 99th centile, the gap is even larger: £1,735 for all households, compared to £1,219 for households containing a disabled person and £1,057 or £1,068 for those with broadly defined or narrowly defined needs for accessible housing.

Owner-occupiers, whether households containing a disabled person or not, tend to have higher incomes than non-owner occupiers. The gap between all households and households containing a disabled person is similar in magnitude to the gap between all owner occupiers and disabled owner occupiers at the top of the distribution, and this observation holds whether one looks at the AHC or BHC distributions.

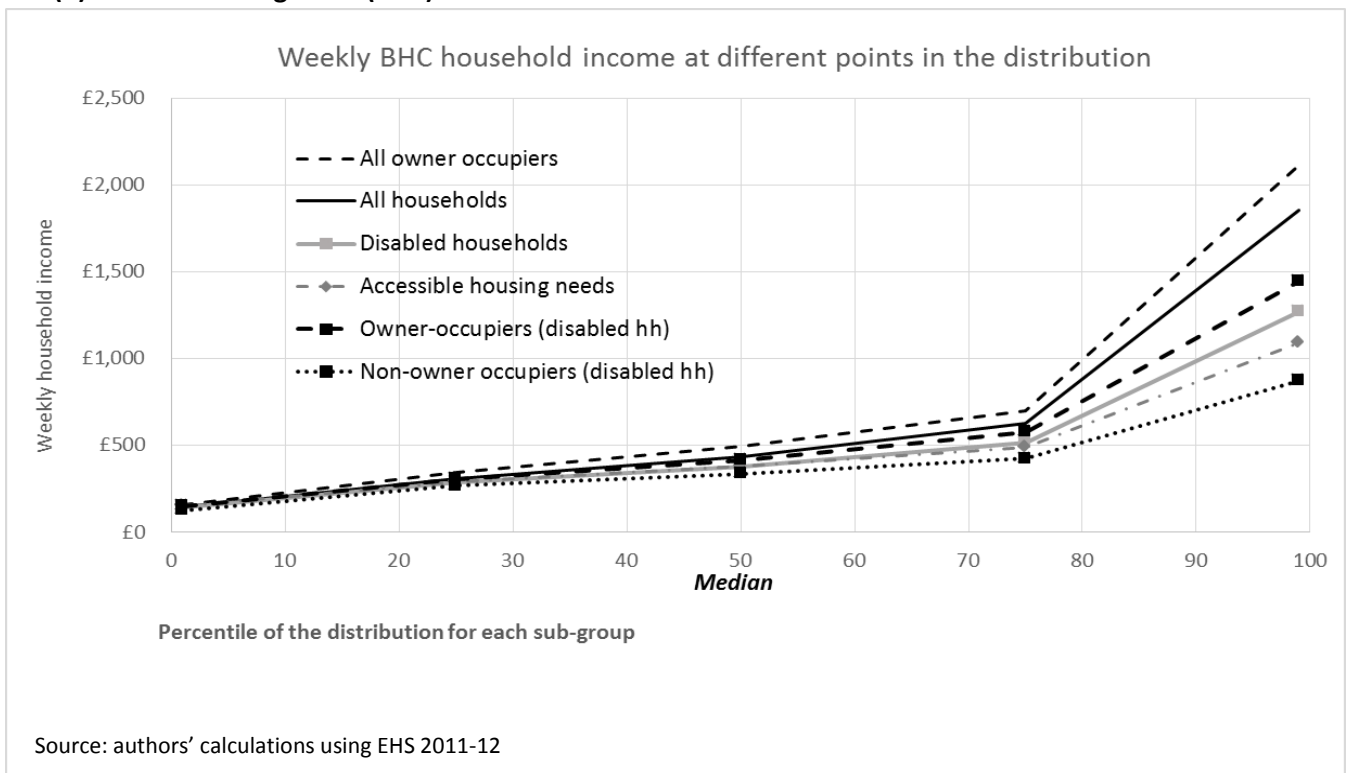
¹⁴ Weekly income in 2011-12 prices. Net income – that is, income including benefits and tax credits, less direct taxes and National Insurance Contributions; equivalised using the Modified OECD scale – that is, adjusting incomes for differences in household size and age composition. 'Before housing costs' (BHC) includes Housing Benefit as income; 'After housing costs' (AHC) income is income including Housing Benefit minus rent or mortgage payments. AHC income is generally considered to be a better indicator of disposable income, but BHC income can be useful as an indicator of command over resources.

Figure 7: Weekly household income at different points in the income distribution

(a) After Housing Costs (AHC) income



(b) Before Housing Costs (BHC) income



Source: authors' calculations using EHS 2011-12

Despite this, a significant number of households containing a disabled person and households with needs for accessible housing have higher incomes after housing costs, as shown in Table 7. The top three panels show the distribution of all households, all working age households, and all owner occupied households across the population income distribution (After Housing Costs). These can be compared to the next three panels, showing the equivalent figures for households containing a disabled person. This comparison shows, as expected, that households containing a disabled person are over-represented in the bottom half of the distribution, but that nevertheless significant proportions have higher incomes. For example, 40, 33 and 55% of households containing a disabled person, disabled working age households and disabled owner-occupied households respectively have incomes in the top half of the distribution (in bold). Finally, in the bottom two panels of Table 7 we can see that around one-third of households with a need for accessible housing have incomes in the top half of the distribution.

Table 7 shows how different types of households are spread across the income distribution. Another way of thinking about the number of households with accessible housing needs that might be able to afford owner occupation, (note that this is not shown in Table 7), is to compare the incomes of these households with the median income of all owner-occupied households, which is £448 per week (see Figure 7 (a), AHC). Nearly two in five (39%) of households with a need for accessible housing in the broad sense have incomes at or above this level, as do 30% of households with a need for Building Regs 2/3.

Table 7: Distribution of households across population income groups

(row percentages; cumulative percentages in grey)

		Lowest quarter (< 25th centile)	Lower middle (25th- <50th centile)	Upper middle (50th < 75th centile)	Top quarter (>=75th centile)	Total Total	<i>Sample size</i>
All households	%	25	25	25	25	100	13,829
	% at or above	100	75	50	25		
All working age households	%	28	23	23	26	100	9,999
	% at or above	100	72	49	26		
All owner occupier households	%	14	24	29	33	100	8,559
	% at or above	100	86	62	33		
Households containing a disabled person	%	30	30	24	16	100	4,359
	% at or above	100	70	40	16		
Working age households containing a disabled person	%	39	28	20	13	100	2,555
	% at or above	100	61	33	13		
Owner occupier households containing a disabled person	%	16	29	31	24	100	2,314
	% at or above	100	84	55	24		
Households with need for accessible housing (broad definition)	%	24	37	26	13	100	1,316
	% at or above	100	76	39	13		
Households with unmet need for Building Regs 2/3	%	30	40	18	12	100	525
	% at or above	100	70	30	12		

Source: authors' calculations using EHS 2011-12.

Household financial wealth

Another indicator of the potential households may have to be or become owner occupiers is their level of financial wealth (i.e. savings and investments). Unfortunately EHS does not ask respondents for a precise estimate of their savings, but rather invites them to indicate into which category their savings fall. Nevertheless, the results are instructive. Just over one quarter of all households (27%) have savings and investments worth £12,000 or more, as do just under one in five (19%, approximately 360,000 households) with accessible housing needs, and 18% (approximately 130,000

households) with needs that would be addressed by accommodation conforming to Building Regs categories 2/3.

To what extent is unmet need for accessible housing associated with worse employment outcomes?

Up to this point we have considered all households containing a disabled person, whatever the ages and status of their members. In this section, the analysis is based on individuals rather than households (since employment is an individual-level outcome), and we restrict our attention to people of working age who have a need for accessible housing (whether or not that need is met).

The majority of people with a need for accessible housing are unemployed or not seeking work because they are long-term sick or disabled¹⁵ (69.5%) (Table 8, column 5), and only around 1 in 10 are in employment.¹⁶ Paradoxically, those with unmet needs (column 4) have a slightly *higher* employment rate than those whose needs are met (column 3): this reflects the different composition of these two groups in terms of their other characteristics, particularly impairment type. However, when we compare those with unmet needs with those for whom accessible housing is not a barrier to employment (column 2 bold italics), either because they do not need accessible housing or because their needs are met, we can see that the employment rate of those with unmet need (column 4 bold italics) is less than half that of the unrestricted group.

Table 8: Employment statuses of disabled working age adults with various accessible housing needs (columns %)

column	1	2	3	4	5
	All disabled working age	Disabled with no accessible housing needs or needs met	Disabled with met need for accessible housing	Disabled with unmet need for accessible housing	All those with accessible housing needs (met or unmet)
Employed	36.9	37.9	8.9	15.3	10.9
Unemployed or not seeking work because they are sick or disabled	40.2	38.9	70.0	67.7	69.5
Not seeking work for other reasons	22.9	23.2	21.2	17.0	19.6
Total	100.0	100.0	100.0	100.0	100.0

Source: authors' calculations using EHS 2011-12

¹⁵ This is the English Housing Survey variable *EconSick*: 'Not working because of long term sickness or disability'

¹⁶ We include part or full-time employment as 'employed'. We include those actively seeking work and those not seeking work because they are long term sick or disabled as 'unemployed'. The third category are those who are out of work for other reasons (for example retired or in full-time education). This approach is also used in the analysis of the survey.

In order to home in on the association between accessible housing itself and employment rates, we need to take account of differences between the groups in their other characteristics that may have an independent association with employment. Holding constant the characteristics of age, gender, type of impairment, household composition, educational qualifications, savings, and geographical region, we find that people with unmet need for accessible housing are **four times more likely** to be unemployed or not seeking work because they are sick or disabled than those who needs are met or who are disabled but do not need accessible housing.

A similar association is observed among owner-occupiers: owner-occupiers with unmet need for accessible housing are **six times more likely** to be unemployed or not seeking work because they are sick or disabled than owner occupiers who needs are met or who are disabled but do not need accessible housing. However, this model is based on a smaller sample size and is not as robust as the model for all disabled adults of working age.

Implications of the findings

A substantial number of households need accessible housing:

- an estimated 1.8 million households in England have an identified need for accessible housing, of whom 0.58 million are working age;
- of these, about 0.72 million (0.26 million working age) have needs that might be met by accommodation conforming to Building Regulations categories 2/3.

These numbers are likely to grow as the population ages.

The needs of a significant proportion of households are not met by their current accommodation:

- around 1 in 6 households with an identified need for accessibility features do not have all the features they need (300,000 households);
- this includes nearly 1 in 3 households with an identified need for Building Regs categories 2/3 accommodation to not have accommodation that meets that standard (200,000 households).

This suggests substantial 'latent demand' for accessible housing or further accessible features.

Households with needs for accessible housing have lower income and savings than other households containing a disabled person, and households containing a disabled person in general have lower average income and savings than the population as a whole. Nevertheless, there are significant numbers of households containing a disabled person and households with accessibility needs that **are, or have the potential to become, owner-occupiers.**

Of households with an identified need for accessible housing:

- 1.0 million households are already owner-occupiers, of which 230,000 are working age;
- 700,000 households have incomes in the top half of the population income distribution;
- 480,000 households have incomes at or above the median income for all owner-occupied households;
- 360,000 households have savings of £12,000 or more.

Of households with identified needs that might be met by Building Regs categories 2/3 accommodation:

- 400,000 households are already owner-occupiers, of which 100,000 are working age;

- 220,000 households have incomes in the top half of the population income distribution;
- 180,000 households have incomes at or above the median income for all owner-occupied households;
- 130,000 households have savings of £12,000 or more.

Finally, unmet need for accessible housing is **associated with worse employment outcomes** among working age adults. Controlling for other characteristics that we know are associated with the chances of being in work, such as age, gender, type of impairment and educational qualifications, we find that people with unmet need for accessible housing are four times more likely to be unemployed or not seeking work because they are sick or disabled than those whose needs are met or who are disabled but do not need accessible housing.

Recommended Improvements to survey data

The English Housing Survey is the best platform on which to build national data collection efforts on accessible housing. A number of relatively minor changes would further enhance its usefulness:

- identification of households containing disabled children, as well as adults;
- alignment of the special module on accessible features with Building Regulations definitions of accessible housing;
- collecting more information on whether households face restrictions in moving house due to lack of accessible alternatives to their current accommodation;
- collecting more information on households saving for a deposit.

The Life Opportunities Survey also has potential, especially for exploring the consequences for households with unmet needs. However, it is currently limited by collecting information on features of respondents' current accommodation:

- LOS to identify accessible housing features that respondents already have, so that both met and unmet needs can be identified.

Appendix 2: Qualitative work – Public Knowledge survey and in-depth interviews

This section brings together the outcomes of the online survey of 1,001 people undertaken by Public Knowledge in November 2015 on behalf of Papworth Trust and Habinteg; and the in-depth telephone interviews of 40 people undertaken by LSE in December 2015 and January 2016. It explores issues and views emerging from these rich sources of information from disabled people, focusing on the key issues of work and tenure choice as required by the study.

The two qualitative exercises

Public Knowledge survey

This survey drew on the existing Public Knowledge in-house online panel, www.panelbase.net, which has been running since 2004. It has more than 220,000 registered members who have been recruited from multiple channels and are considered by Public Knowledge to provide access to a nationally representative sample of the UK population (although this is not relied on here, as set out below). They undertake extensive profiling allowing the surveys they do to target respondents according to location, demographic profile, lifestyle and interests. For this exercise they restricted the sample for this report to those members of the panel who consider themselves to be disabled, and who were of working age (since one of the key issues is the link of unmet need to economic activity).

This survey was run in a period between 9-19 November, based on a questionnaire agreed between Papworth Trust, Habinteg, LSE and Public Knowledge, using the questionnaire which is attached at appendix 5. Responses from 1,001 respondents were provided to LSE, included a tabulated summary of responses, as well as the free text answers to open questions.

In terms of the sample responding, this was generally in line with the demographics of the large scale survey (EHS), although with some variations as set out below.

More women than men replied:

Gender	
Male	36%
Female	64%

There was a good spread of ages of respondents although compared to the population of working age disabled people as a whole, the survey sample over-represents younger people.

Age	
18-24	13%
25-34	24%
35-44	19%
45-54	23%
55-64	22%

In terms of socio-economic group of the main household earner, 27% were in groups A or B, 47 in C1 or C2, and 26% in D or E.

SE Group

A	5%
B	22%
C1	32%
C2	15%
D	12%
E	14%

A third (34%) had household incomes less than £300 a week; and only 12% had incomes over £800 a week. In all 55% had incomes above a level equating roughly to the UK household net median income before household costs¹⁷.

Income	
Less than £100 a week	5%
£100 but less than £300 a week	29%
£300 but less than £500 a week	21%
£500 but less than £800 a week	17%
Over £800 a week	12%
Don't know	6%
Prefer not to say	9%

Tenure mix was not dissimilar to national levels, though with slightly fewer owner occupiers:

Tenure : Public Knowledge survey	
Home owner	54%
Private rental	21%
Social renting	19%
Other	6%

Note: Shared ownership included in home ownership

It compares to the national representative sample of households including a disabled person as below:

Tenure : National disability survey	
Home owner	59%
Private rental	11%
Social renting	30%

The general household composition was also quite mixed:

¹⁷ Using the HBAI (2015) 2013-14 estimate of a median household income of £23,556 (£453 p.w) before housing costs and the bandings in the survey banding of under £500 household income, which slightly underestimates the proportion under the median

Household characteristics	
Couple no children	32%
Couple with children	29%
More than one adult (not partner)	20%
Single person household	18%

It is important to make clear that none of the results from this survey are being presented with any claim to statistical significance. The sample is small, and more importantly self-selecting, so cannot be used as a representative sample from which such statistically robust conclusions could be drawn. Rather it is a sample which provides qualitative insights into the views of the disabled people who responded to the survey. It is important that we hear from a wide range of people, and for this reason it is important that we are able to set out above that the self-selecting sample who have replied covers many of the groups who make up households containing a disabled person; and we set out below some tables with counts of percentages of people who held certain views. This provides some indications of how common certain responses were, and whether some groups (for example owner occupiers) were more inclined to make a certain type of response than others. All this is important qualitative information to present and bear in mind, but we are clear that the material in this section is qualitative and indicative, and not to be interpreted in as quantitatively significant in any sense. This applies even more so for the interviews, as their function is to provide more detailed insights into the specific circumstances of the people who agreed to talk more about how met and unmet needs have affected them – a rich supplement to the other elements of the study.

In-depth interviews

Forty in-depth telephone interviews were conducted. We drew on the respondents who had agreed in the survey to a follow-up interview, of whom there were in total 272 (although some 24 either declined when rung or proved to have provided incorrect telephone numbers).

The first criterion for sampling was that the person should have an unmet need for accessible housing of some kind. In the light of the aims of the research around developing home ownership, and understanding the impact of unmet needs on work and earnings, we first selected from the 15 people who had indicated they were considering buying a new home to address their unmet need. We also prioritised those who indicated that their unmet need had had the effect of deterring them from taking a job, or taking up opportunities for job related training. Once all these people had been contacted (up to 5 times at different times of day to try to secure contact), we moved to other respondents who had indicated they were happy to be contacted, focusing initially on those who indicated they might move to other rented properties, or had indicated in some other way that their lack of special features might have an impact on their economic status. We also interviewed 3 people who indicated they had no unmet needs although those interviews did not differ significantly from the others.

The in-depth interviews covered people experiencing most of the problems and issues identified by the qualitative work, and also covered in the Public Knowledge survey¹⁸.

Interviews followed a semi-structured topic list (at appendix 6), and were informed by the full details of what the interviewee had set out in their on-line response about their household, income, tenure, disability, met and unmet needs, and intentions in relation to tenure and employment issues. The interview therefore focused on drawing out more detail in relation to aspects of the detailed information already available, and normally took around 20-25 minutes. Comprehensive contemporaneous notes were taken and immediately summarised into a structured format following the conclusion of the interview

Main findings

The results of the survey and in-depth interviews complement each other, and indeed draw from the same respondents. Information from the in-depth interviews provides detail, case studies, and additional insights to the more general information from the survey, and indeed we draw from the more detailed comments about problems and issues embedded in the free text results in the survey. We therefore deal with both sets of results in one section here, using the full range of quantitative and qualitative results to examine the key themes and questions at the heart of this report.

Similarity to the qualitative survey results

We also produced a structured and coded file of the survey responses. There was a clear pattern of overlaps between being unable to work due to disability and having an unmet need for a specific feature to address a disability need – similar to the relationship found in the qualitative work.

Specific impairments

This section provides more qualitative information about the types of impairment people have, and the consequent needs. Tables in all the sections in this section of the report are mainly from the survey results, *which to repeat for absolute clarity cannot be taken as providing statistically significant information but only as indicative of the prevalence of the issues flagged amongst those choosing to take part in the survey.*

Respondents could indicate as many different types of impairment as they wished. Mental health and mobility issues were those most commonly reported. Note, again, that the percentages quoted are indications of how many people gave that response, and not statistically significant.

¹⁸ In terms of the spread of people interviewed, 13 were men and 27 were women, which actually reflects the full survey respondent proportions. Of the 15 people indicating they might wish to buy and were willing to be interviewed, 7 refused an interview or had wrong numbers, and 5 could not be reached despite multiple attempts; and 3 were interviewed. Half were owners, a quarter social housing tenants, and about one in five were private renting, again reflecting the national pattern of tenure for households containing a disabled person. Seventeen were not working due to disability or long term illness; 29 were in working households although 17 had incomes below the median income level set out above. Amongst the individuals interviewed, 16 were engaged in either full or part time work; and two in five had children living in their household. Three quarters had a mobility issue amongst their impairments. In terms of unmet need, about three quarters lacked accessible features in their kitchen and bathroom, which included a non Building Regulation category 2/3 issue in 26 cases; two thirds had other interior unmet needs, of which two in five were non category 2/3; and about two in five (18) also had exterior unmet needs (which often turned out to be lack of ramps for access, or rails to get up the garden path).

Long term health problem or impairment	
Mental health	37%
Mobility (for example walking short distances or climbing stairs)	32%
Stamina or breathing or fatigue	26%
Vision (for example blindness or partial sight)	19%
Hearing (for example deafness or partial hearing)	19%
Memory	11%
Socially or behaviourally (for example associated with autism, attention deficit disorder or Asperger's syndrome)	11%
Learning or understanding or concentrating	11%
Dexterity (for example lifting and carrying objects, using a keyboard)	8%
Other	11%

Note: Multiple responses possible.

Mobility and lifting issues were most cited as difficulties caused by long term health problems or impairments, and 30% indicated 'none'.

Difficulties caused by long term health problems or impairments	
Moving - Mobility (moving about)	32%
Lifting - Lifting, carrying or moving objects	28%
Balance - Your physical co-ordination (e.g. balance)	18%
Learn - Memory or ability to concentrate, learn or understand	18%
Hands - Manual dexterity (using your hands to carry out everyday tasks)	15%
Speech and Vision - Communication (speech, hearing or eyesight)	14%
Bladder and Bowel - Continence (bladder and bowel control)	12%
Danger - Recognising when you are in physical danger	6%
Other - Other health problem or impairment	16%
None - None of these	30%

Note: Multiple responses possible.

Additional information about the nature of impairments from the in-depth interviews indicated both some recurrent features and the unusual nature of other problems. In four cases the person with the impairment was an elderly parent, and in three cases it was a disabled child. Many cases involved progressive arthritis of some kind (16), and six involved back conditions which similarly impaired mobility – and the majority of people reported that their condition or impairment was both long term and progressive, leading to slowly changing housing accessibility needs. About a quarter had impairments linked to specific accidents or illnesses which had the consequence of giving rise to the need for housing accessibility features. In one case a rare heart abnormality which carried the risk of imminent death at any time and meant the interviewee could not, despite being in her early 20s, go to work anymore as a morning alarm could cause a fatal heart attack, and no work insurance could cover this risk.

“I’m not allowed to drive but it’s really embarrassing when my partner drives me to the supermarket and we park in the disabled spaces – people often look at us and comment negatively as I look like a healthy 20 year old” (woman, 20s)

Two people had work related impairments (mainly relating to long periods of heavy lifting); and another had had to stop work because a progressive bone condition meant the 30 mile drive to work was no longer possible without intense pain. One could not go to work because of a frequently broken building lift serving her flat; and another suffered from a serious financial problem due to not being connected to the sewage mains and having a bowel related condition that required frequent toilet flushes and showers, requiring very expensive regular emptying of the septic tank.

“I need to use the toilet very often and my son [who has mild mental health problems] frequently takes long showers. We can’t afford a treatment fitting gadget (£8k) but regular emptying is £220. So often I can’t have friends to the house because of the smells, and because they can’t use the toilet properly” (woman, 40s, owner)

The case study below indicates the complexity of how some needs can affect households with disabled members.

Case study: humned by their friends

Victor, a man in his mid 50s, is a social housing tenant with multiple medical conditions – spine, angina, arthritis. His wife Betty has developed arthritis and is experiencing poor mental health.

In their previous home social services installed handrails and other features which helped them. Then he downsized (a year ago) to help the council meet demand for family homes, as his stepdaughter had moved out. This new flat had already many features – wet-room, handrails, low steps in and out. The council say they can install a stair lift in due course when need gets worse. The new house also has a garden which helps him to exercise and keep active.

Another feature he has in the new home is better social life. Before the onset of their ill health they had a good social life based round the local pub and playing darts. However when they became ill, they could no longer take part in their accustomed social activities, and experienced rejection (and some unacceptable behaviour) on the part of their former friends. This led to disappointment, anxiety and distress. Their neighbours at their new home are friendly and helpful, which has improved their health and wellbeing.

Met and unmet needs

Questions were asked about whether the specific needs people had for accessible housing remained unmet or had been met. As above, in over half of the in-depth interviews people noted that their needs were changing as their condition progressively worsened – explored more in the section on ownership below. Looking at unmet needs, these can be divided into those which affect the kitchen and bathroom areas, other needs inside the home, and needs in the external area around the home.

Unmet needs	
Kitchen and bathroom	258
Other interior needs	202
Exterior	128
Any unmet need	303

Note: multiple responses possible.

The position of 'met' and 'unmet' needs is much more complex than this, however. Looking at the survey evidence, three in five respondents who have already had some needs met say they still have some unmet needs which affect them adversely. Evidence from the in-depth interviews sheds more light on this. Some needs may be seemingly small but with significant impact on the quality of their lives. These small issues are varied – in four of the cases they concerned fitting new or replacement handles to an already adapted bath or shower; in three cases, needing a better designed car parking space to allow the respondent to get to available transport; in five cases needing additional rails for balance or safety; in two cases needing repairs to adapted bathroom equipment already fitted; in three cases requiring further adjustments to kitchen fittings or equipment to allow normal cooking and eating; and in once case replacing defective double glazing where heating was an essential aspect of maintaining a good quality of life. In three cases these missing 'details' were significant aspects of being unable to take a job. In many of the cases the works required were not major, compared to for example installing a new bathroom or kitchen, but were nevertheless out of the scope of the low disposable household income (hundreds of pounds, not thousands). In about a fifth of cases the household was saving to incrementally provide the additional features for themselves, in the absence of further social services help.

Vignette – small improvements to a rented flat

Alice is a single woman in her late 40s. She has arthritis, which has been progressive for some years and has become much worse in the last two years.

She lives in a private rented flat which already had wide doors and large rooms when she moved in, and is on one level. Social services then put in a wet room for her. This made a great difference to her quality of life – it meant she felt safer and more in control, could do her daily activities more easily and with less need for help from carers and social services. But she still needs additional features. One is for a set of handles in the wet room she has to allow her more easily to make use of the shower; the other is for ramps so she can get in and out of the house in the mobility scooter she bought with her own money.

She has asked the landlord for ramps to get her scooter in and out but *“he is a busy man and does not really have the time to deal with this”*. Interestingly she has not asked social services about the ramp and thinks she might now do this after we discussed this a little.

She is no longer able to work due to the arthritis. Up till about two years ago she could have worked if she had been able to get out and about, but now it is much worse and sometimes she just can't get out of bed.

She is not interested in moving. She is settled where she is and has many of the features she needs so moving would be difficult and a big disruption. All she want is *“the small things done that would make such a difference – shower handles and a ramp for my scooter”*.

Second, and related to the point about ‘understated’ needs in part one, during interviews respondents often stated that they had not approached either social services, their landlord, or any other likely charity or advice agency about getting needed works done. This might indicate that the level of need was not high, and indeed in a few case people clearly stated that the reason they had not approached anyone was that the need was not yet sufficiently pressing – at least in their view – and they would perhaps deal with it later. Excluding these people, in all 12 interviewees indicated they had not approached social services or anyone else for help:

“No we did not approach social services to fit the rails. It’s the great British attitude, just get on and do it” (woman, mid 40s, about her daughter’s needs)

“When it’s worse, we just take more pills and get on with it” (Couple, both with mobility problems, 50s)

“If social services can’t be bothered to ask us what we need when we are registered as disabled, then I can’t be bothered to pursue them” (woman about her disabled husband, early 50s)

“We didn’t think they could help because of the cuts and all that – so didn’t ask” (Man, 40s, needing rails that paid for himself)

“I didn’t, and if I’m honest I think it is because I don’t want to admit to myself that I am disabled” (woman, late 30s)

Four specifically thought that their income or status as owners would preclude help being available (but had not checked). In three cases, however, the interviewee stated they were actively pressing for help from social services (*“battling with them”* in two cases).

Social renting is slightly more likely than other tenures to have unmet need. Given the concentration of disabled people in social renting, the high level of unmet need is a matter of concern. During interviews with people in private renting, it was often the case that landlords were not seen as sympathetic to providing support through installing accessible features (although some are also reluctant to ask:

“He’s a busy man and does not really have the time to deal with this” (woman, 50s, recently left work)

Sometimes private landlords may refuse to allow accessible features, perhaps as this might affect the longer term marketability of the flat:

“Social services agreed to install external and some internal grab rails – but the landlord refused to allow this even at no cost to him” (man, early 50s, self-employed)

In another case the landlord has asked the interviewee to move out, and she thinks this is because she is disabled.

Social housing tenants reported different issues, in interview. Six had been moved to a social home because they are disabled; and in all seven reported a positive attitude and practical help from their landlord in fitting accessible features and providing support. In one case the interviewee had sold his house to a housing association, in order that they could do additional works – some of which they

did (rails) but others not (insulation and heating work). And others reported small niggles about maintaining some of the accessible features which the housing association had put in.

Unmet needs in different tenures	
Percentage of owner occupied respondents who have unmet needs	29%
Percentage of social housing tenant respondents who have unmet needs	39%
Percentage of private renting tenant respondents who have unmet needs	28%

Base: those with needs (met and unmet)

We asked about needs which had been met. In all 38% of respondents said they had had some of their needs met, although 61% of these people also said they had some remaining unmet needs. We also asked whether specific features which were needed and had been provided for ('met need') were in place at the point that the respondent moved into their current home. Responses indicate (see following table) that in 29% of the cases none were met; and that the most common met needs were for wider paths, doorways, and kitchen and bathroom spaces. More specific needs for bathroom or kitchen equipment or internal ramps were less likely to have been provided.

We might have expected that owner-occupiers would be more able to fund their own needed accessible features, and out of the 20 owner occupiers interviewed 17 had installed items themselves – in contrast to one of the seven private renters and three of the ten social renters. In addition, however, five home owning interviewees indicated that the onset or worsening of their condition or impairment meant that whereas at one point they had a salary sufficient to fund home ownership, they now found themselves struggling with a residual mortgage which made it very difficult to afford additional improvements.

"I feel a bit trapped in my own home now, with not enough money to do the improvements I need. I find it very difficult to meet all my bills including the mortgage each month. But I don't want to move, and certainly not to a rented flat. I just don't want to lose my home, and in any case moving would cause too much disruption and difficulty" (woman, 54-65, long term progressive bowel problems)

Impact of meeting needs

We asked respondents about the impact of certain of their needs being met. Half cited feeling safer, and 46% being more in control; 17% indicated feeling more pride in their homes, and 11% that they had an improved social life (see following table). This suggests that there is an important impact in which highlights the importance of dignity, independence, and choice. Twenty-three per cent also noted improved general health and wellbeing as benefits, and 24% experiencing less pain. In contrast few people talked about work opportunities (5%) training for work (3%) or increased work income (6%) as specific benefits, although one person stated it made it easier to work from home. People with mobility problems were more likely to report needing less assistance from family or carers than people with other impairments; and people in social groups AB and C1 were more likely to say their general health and wellbeing had improved than those in groups C2, D and E, although we have no evidence as to why this is. Amongst those now working 30 hours or more 67% (14 people) indicated that having their needs met had assisted with getting work, and 52% (12 people)

that it had helped them earn more. Those with a met need for accessible parking often noted needing less help from family or carers, having more pride in their home, benefiting from getting out of the house, having a better social life, and being less tired (about two in five citing these benefits). No specific effects of tenure were apparent in the answers around benefits of met needs.

Benefits of having a need met - % are indicative only	
I feel safer	50%
I feel more in control	46%
I can do my daily activities more quickly	28%
I experience less pain	24%
My general health and wellbeing has improved	23%
I can get out of the house	20%
I get less tired going about my daily activities	19%
I need less help from carers and health/social services	19%
I have more pride in my home	17%
I have an improved social life and interaction with friends and family	11%
It has saved me money on regular expenses	7%
I can now make more income at work	6%
I am now able to consider taking a job/have got a job	5%
I am now able to get training for work	3%
Other	2%
None of the above	11%

Base: 384 total respondents, who had some need met, and % of respondents highlighting specific benefits. Multiple responses possible. Prompts were derived from findings of previous studies.

Other more specific general comments made by people included:

"The main benefit is freedom" (home owner, 35-44)

"Having these works in place makes everyday life easier" (home owner, 35-44)

"I am now able to work from home, and have more money" (home owner, 45-54)

Impact of unmet needs, including on working

Of particular interest to this report is the impact of having unmet needs. Part one above has already indicated the relationship between unmet needs and worklessness. The survey also asked about specific impacts related to work and job training in anticipation of work:

As a result of an unmet need, have you:	
Avoided applying for a job, training or higher education opportunity because of concern around finding housing that met access needs in the area	7%
Not been able to live in an area you/they want to live in because of an inability to find housing that met access needs in the area	5%
Turned down a job offer, training or higher education opportunity because of an inability to find housing that met access needs in the area	4%
Applied to a job offer, training or higher education opportunity primarily because of housing that met mine/their access needs in the area	4%
None of the above	83%

Base: 1001 responses

Note that only one in five made the link between unmet need and these work related activities; although a more detailed analysis shows that 62% of respondents working over 30 hours (24 people) indicated that they applied for a particular job or training primarily because of housing that met their needs in the area.

The survey also asked two open questions about the impact of unmet needs. The first asked about the general impact, and 330 replies (about a third of the sample) were made. Many of the comments were extensions of the description of the main need (such as saying that the main impact of not having a stair lift was not being able to get upstairs). We have therefore concentrated here on comments which went beyond simple descriptions, but gave more information about the wider impact. The most prominent of these (in 31 cases) was the question of independence and dignity, and having to rely on others. This often accompanied the more physical description, such as:

"It sets me back on doing some certain tasks and it makes me unhappy to have to rely on others" (man, 25-34)

"I have to rely more heavily on family, friends, and carers to assist me in carrying out everyday tasks that I could do myself if the adaptations I need were provided the adaptations that have failed were repaired or replaced" (man, 55-64)

Part of this was feelings of isolation. Ten more people talked of stress and anxiety produced by the continuing problem:

"The main problem is lack of confidence, being unable to do certain tasks, and mocking from my peer group" (woman 35-44)

"Vulnerability in the work place and feeling self-conscious, depressed, and unable to talk to anyone about how I and my husband are affected at work"

Others cited the impact on social life and friends (in nine specific cases):

"I have the feeling of being trapped in my own home" (man, 55-64)

"I am unable to have a social life" (woman, 55-64)

Similarly money was often a problem, cited by 16 people:

"The problem with not having these things is it means I end up wasting time and money" (man, 25-34)

"Because my husband works full time I don't qualify for a grant for a stairlift and wetroom. The work would cost £9,000 and we can't afford that sort of money" (woman, 55-64)

The second question considered here asked about the impact of unmet needs specifically on work life of the consideration of work. Around 140 people (14%) provided answers addressing this question, which is low, although a further 15% provided answers which addressed more general impacts not related to work. Of the work related impacts, about a third (44) simply set out that work was not possible at the moment due to impairments or illness although in 15 cases this might be possible if the accessibility of their housing were improved:

"I'm so exhausted during the day it would be impossible for me to work a full day shift. If I had more adaptations in the house I feel that this would save me energy which I can use elsewhere, i.e. work" (woman, 45-54)

"Generally it sets us back on some things and I believe if they were available it would have speeded up my recovery and maybe going back to work" (man, 25-34)

"It just means I have to suffer at work but it's not too much of a problem – I can get by without help" (woman, 25-34)

Twenty six survey respondents noted that their impairment made work more difficult due to pain, taking longer to do tasks, the tasks requiring more effort than for non-disabled people, or having problems coping at work:

"I have become increasingly depressed and isolated in the workplace" (man, 55-64)

"I tire easily and need extra breaks" (man, 55-64)

Five pointed to problems with their employer:

"The company I work for are aware of my health problems. I have complained a few times that the work is too heavy but they still insist I do the tasks involved in doing the job" (woman, 55-64)

In contrast four pointed to good employment practice:

"I have a very understanding employer who makes sure that I have everything I need in order to carry out my job and my manager meets with me on an almost weekly basis to make sure I am OK. This enables me to remain well for much longer periods and allows me to stay in my full-time job" (woman, 45-54)

Twenty three noted issues about feeling hopeless or having low self-esteem, which prevented them from working:

"I don't sleep well, and always feel tired. This worsens my depression and anxiety. It leads to me feeling unable to participate in a proper career and social life. I have more pain due to not having features what would help me round the house" (woman, 45-54)

"it makes me feel worthless" (woman, 25-34)

Six people specifically flagged the impact on their income or the costs of coping with the unmet need on a low wage or benefits:

"the effect is social isolation and low income" (man, 45-54)

This also had an impact on their carers:

"For me, caring has meant I am unable to focus 100% on my own business which has suffered as a result" (man, caring for woman, 54-65)

Eight people noted problems of transport, mainly not having sufficiently accessible parking, as making work difficult or impossible

“There are problems getting to the car in bad weather, and it’s a struggle if I need to put something in the car” (man, 55-64)

Case study: Trying to be work ready

Carol is a woman of 47, a home owner with her husband and 15 year old son, has a longstanding spinal condition which deteriorated recently. She finds it hard to use the bathroom and needs grab rails and more accessible bathroom furniture. They moved 12 years ago to a bungalow. The house is on one level but at the bottom of a steep hill. Getting a more accessible kitchen really helped her to feel in control, and they can now have people round and she can cook for them. Her husband works, but is on a low wage which is not enough to afford the extra adaptations they need, but more than will allow Social Services to provide these for them (in her view).

She used to work as a special needs teacher in a local school but could not continue because of her pain and the physical demands of the work. She wishes, however, to work. She recently found a part time flexible catering job near her home. However, if her home were improved in ways which would make her less vulnerable to pain she feels she could move to a more regular job for which she is qualified.

Interested in buying a home

We looked at who was interested in buying a home as a means of addressing an unmet need. Fifty two people from the survey respondents were in this group, (17% of the group with relevant unmet needs who were asked whether this was an option to meet the unmet need). Within this group just under half (25) were under 34 years old, and 26% (14) were 54 or over, showing a wide distribution of ages. This may be, drawing from the wider evidence of the in depth interviews, since there is a range of people looking for new homes with additional features which will enable the disabled person to work more, and at the other end of the age spectrum some older people who wish to move to a later life retirement bungalow with all the features they need. Most are owner occupiers and would be selling existing properties, as shown below:

Tenure of possible buyers	No.
Owner occupiers	40
Social renters	3
Private renters	7
Rent free	2

All of these people had one or several unmet needs, across the full range of accessible features. Many (about half) had some internal kitchen or bathroom needs, while a similar number had (perhaps in addition) other internal needs (mainly rails or stair lifts or rails); about half had external needs – principally for access via ramps or disabled parking and access. About half of all of these needs were in the ‘not category 2/3’ group.

In all half (26) indicated that the unmet needs had affected their ability to apply for or take up a job or training opportunity (question 8b). All were living in households with an economically active head of household, although in eight cases the person with the impairment was not working because they

are long term sick or disabled. Just over half (28) had incomes below the UK median income. It may be that in some of these cases the household had bought their home prior to the onset of their condition or impairment, an aspect which was seen for most of the owners who were interviewed in the in-depth part of the study. Only 13 had moved to their current home to be in an adapted property.

As noted above, three of the interviewees had stated they wanted to buy in the survey, although more indicated during the in depth interviews that they had actively considered this as an option. The three people above were all young (under 35), and two had children. In two of the cases it was clear that the lack of certain features was hindering their earning potential and they wished to move to address this as one of the key issues, although in the other case the move was more related to accessibility and moving to a good area for their child's schooling. One was self-employed, and her ability to earn was severely hampered by having an upstairs toilet accessed by a steep stair which on some days she found very difficult to navigate (often on her hands and knees, and sometimes she remained upstairs in the bedroom when the pain was particularly acute).

Other interviewees expressed a wide range of views about the general option of buying another home, despite not having flagged this expressly. In commenting on ownership, six indicated that they did not want to move from the area – in two cases because of the level of support they received from family, and three others mainly due to having lived in the area for many years.

“After my injury I have mental health problems and epilepsy; I need regular care and assistance from my mother and stepfather, so I moved here to be a street away from them. The area has all the services I need nearby as well.” (man, 30s, owner)

Eight cited the desire to move at a later time – in most cases to a final home when they either retired or the problems became too much (mainly where the condition was progressive). Two others were intending to move when their children left home after finishing school. Three owners intended to move to social housing adapted bungalows when things became more difficult, selling up, and one of this group set out that she wanted to wait till the last possible moment so that the capital realised from the sale would last her for the rest of her life.

Five were clear that they had already invested considerable time, effort, and resources getting most of the accessible features that they needed installed, and it was just a few more that they still had to be done, which should not take much to do. This was a more common attitude amongst people of all tenures (already discussed above in relation to unmet needs). In fact in 27 of the 40 in-depth interviews the interviewees indicated that they already had accessible features fitted in their homes – sometimes by Social Services but often either wholly or in part by themselves – but there were still some important accessible features needed to address their needs. Sometimes this was due to the progression of the condition that was giving rise to the impairment (for example a stair lift might be needed rather than simply rails up the stairs); in other cases there was damage which needed repaired (such as rails or handles which had been pulled off during use); and sometimes additional works which had not been done but which were crucial (and five cases involved additional exterior works to provide disabled parking and access). That is to say, having an ‘adapted home’ was clearly not either a static or an all of nothing thing. The need for changes, improvements, repairs, and additional features was constant, and the combination of different features varied considerably from person to person. One clear implication of this for developing options for additional home

ownership is that having an element of ‘customisation’ of the home would be likely to be an important additional selling point.

Evidence about people’s hesitation in wanting to move can also be seen in the survey which asked the 174 people who indicated they had no interest in buying or moving to another rented home why this was. Replies were:

Why do you not want to move?	
Happy where I am/they are	46%
Couldn’t afford ownership	30%
Too much disruption to move	14%
Can’t see there would be many benefits	6%
Don’t want to spend any more on housing costs	3%
Other	1%

Base: 174 indicating they did not wish to buy or rent elsewhere

Case study: Too much in place to move

Judy is a young adult wheelchair user. She lives with her partner and child in an owner occupied property which they bought a year ago. She wants to go to work but is prevented by an unreliable lift in her apartment block and the absence of some further adaptations in her home – more space in the kitchen, adjustable work surfaces, automatic cupboard doors and similar items

When they moved in social services put in a lot of adaptations, including some bathroom and kitchen features. Since then they have returned to make repairs or alterations.

However, the house is not fully wheelchair-accessible. It lacks appropriate internal doors, paths, parking, and a reliable lift – all of which restrict her mobility and independence. The kitchen surfaces need to be adjustable so she and other family members can use them.

To be able to work, she needs a combination of the features above, and also some additional help from a carer.

Implications of the findings

This part of the report has provided a range of insights into the attitudes and preferences of disabled people who have chosen to take part in the two qualitative surveys. Their views are not representative of the population as a whole, although they do appear to cover a wide range of that part of the disabled population who have unmet needs for some form of feature to improve their quality of life, income, and housing options.

What has emerged includes:

- The concept of 'met' and 'unmet' need is in many cases more nuanced than it might seem from the perspective of more standardised national surveys (where it is of necessity tightly defined). This is because:
 - many people have a mix of both met and unmet needs;
 - needs are dynamic over time, as conditions deteriorate (or improve), and people move into different phases of their life (children leave home, retirement);
 - sometimes the 'met' needs are actually not what is needed (for example stair rails where a stair lift has now become necessary);
 - sometimes features are broken and need replacement or repair;
 - often there are additional 'unmet' needs which undermine the benefits of the 'met' needs. In relation to work this seems often to involve disabled parking and access to the home;
 - in a significant number of the in-depth interview cases these additional (and often minor) unmet needs seemed to potentially make a major difference in both the overall wellbeing and also the work readiness of the disabled person.
- Similarly there appears, from the in-depth interviews, to be an under-representation of 'unmet' needs where households containing a disabled person 'muddle through' and do not take steps to seek features which may be available and which they often implicitly accept they need when discussing them in open ended interviews. This may be due to a belief no assistance is available from social services or other sources; or because of lack of their own resources to provide these features.
- When identifying both the benefits of needs having been met, and the continuing problems of unmet needs, the social dimensions are prominent. These include independence, reducing dependency on others, feeling safer, having a better social life, and reduced stress. The importance of the 'social model' benefits in the literature, in addition to the 'medical model' benefits is apparent in how people describe their circumstances.
- A small number of people highlight work as a key element in having or not having features they need; many do not, particularly older people who consider their working life to be over
- Similarly only a small number of people (17%) specifically identified buying a new house as a means of resolving their unmet need problem. In addition to this, however, a further set of people identified moving to a new home as a longer term aim and solution, once they got older or their condition worsened.
- Barriers to buying include:
 - not wishing to leave the familiar and supportive neighbourhood (location);
 - having invested time, effort, and money in their existing house and viewing the remaining unmet need (however crucial) as small in comparison to the met needs and not worth the effort and disruption of moving to address.

Appendix 3: Short review of relevant literature

Heywood (2004a) reports on a large survey of recipients of accessible features in England and Wales (supported by the Joseph Rowntree Foundation (JRF) in 1999-2000, published as Heywood, 2001). This showed that well designed accessible features had beneficial and/or preventative effects on both physical and mental health, and these were long term and extended to family members. 'Health' in that survey was closely linked to 'wellbeing'. This paper stresses the importance of factors including dignity, sense of control, and the professional views of occupational therapists as opposed to medical opinions in providing effective accessible features. This includes evidence cited on the 'meaning of home' where some accessible features are resented by the disabled occupier, and perceived as profoundly disempowering.

Evidence from the survey suggested the main negative health issues from unadapted or badly adapted housing were pain, accidents (and fear of accidents), and feelings of depression. Depression was very often linked to humiliation people felt in relation to not being able to use a toilet independently, or showering and bathing. The main problem for family members was injuries to backs caused by lifting the disabled person. Positive benefits of accessible features mirrored these problems – relief of pain, reduced accidents, and reduced depression. The conclusion of the article identified the importance of the 'meaning of home', the concept of intrusion, the need to understand adaptation as an interaction between the person and the environment, and the importance of treating adaptation as a matter of civil rights.

Heywood (2005) develops further the idea of 'meaning of home' and its importance in relation to the impact of accessible features (as well as citing a range of literature around this concept). Alterations of the home which produced an unacceptable image of self that did not restore privacy and a sense of primal security nor respect the respondent's control within their home, all produced unsatisfactory results. The aim of accessible features should be like a transformation in which the barriers that have turned someone's dwelling into a palace of embarrassment and confinement are removed and their home is restored to them. However if in adapting the house the meaning of that their home has for the resident is inadvertently ignored, this may seriously harm the effectiveness of the work.

The paper lists nine aspects of the 'meaning of home'. It then sets out the findings of a large survey which investigated the reasons for seeking accessible features, the work done, and the impact. Similarly to the study above, restorative accessible features which had major impact included access to toilets, shower and bathing areas, and restoration of autonomous access to kitchen, bedroom, and other areas. In terms of preventative improvements, prevention of falls and other accidents was a frequent area of satisfaction. For many people unadapted homes were perceived as 'unsafe' where they feared falling, endured pain in getting upstairs each night, or caused pain through lack of heating. Adaptation which reduced pain and danger restored the home as a place of safety and security. Similarly anything which restored the privacy of the resident in the home (for example the ability to go to the toilet unaided) was highly valued. Overall extension of the resident's autonomy of movement and action were another important element, as was creating a place where the resident would be proud to invite friends and family to visit.

Planning accessible features also delivered greater satisfaction where the resident was fully involved in the decision making and in setting out their own view of the importance of different options, rather than having decisions imposed by professionals. A conclusion of the paper is that in planning accessible features use should be made of a clear 'meaning of home' checklist, which would have to be part of the wider assessment of the suitability of the works.

Heywood and Turner (2007) provide evidence around whether increased investment in housing accessible features and equipment would bring significant savings to the National Health Service and to social services budgets. This evidence is drawn from search of the international literature, in the disciplines of medicine, housing studies, ageing studies, economics, health-economics and occupational therapy, and through use of case studies from the grey literature. Their findings include that savings to health and social care budgets can arise in four major ways:

- savings through reducing or removing completely an existing outlay. The two key savings under this heading are the cost of residential care and the cost of intensive home-care, both major expenses to social services budgets.
- saving through prevention of an outlay that would otherwise have been incurred. Savings under this heading include the prevention of accidents with their associated costs, prevention of admission to hospital or to residential care and prevention of the need for other medical treatment, prevention of health care costs for carers;
- saving through prevention of waste. Much of the waste in regard to accessible features comes from under-funding that causes delay, or the supply of inadequate solutions that are ineffective or psychologically unacceptable;
- saving through achieving better outcomes for the same expenditure.

The report consists in a detailed analysis of published evidence to support and quantify each of these four areas of possible savings.

Landsley et al (2004) provide further evidence around cost benefits of adaptation, in this case for older people. It is particularly focused on the use of accessible features and assistive technology (AT) accessible features in social housing in terms of the extent and cost of accessible features, how these can reduce the costs of formal care, and the experiences and opinions of the people using these accessible features. The report sets out a range of types of impairment, AT which is provided and categories of AT, impacts, and costs - as part of this 82 homes were audited in detail.

Interviews with residents indicated clearly that key issues for them were the restoration of privacy and mobility to get to all areas of the house. They also welcomed changes which allowed them more security in summoning help when needed. Conclusions included evidence that AT could be an attractive substitute for home care, although not always eliminating the need for it; that if AT and adaptation are to be more effective there needs to be a strengthening of the knowledge and skills of the health and housing professionals directly involved with the adaptation of older people's homes; and that accessible features should be viewed as integral to community care packages, and not as simply useful supplements – particularly when considering new technology. The authors also flag that they have reported limited discussions with disabled residents and their families but that such evidence would be immensely valuable to complement the work in their study.,

Imrie (2004) introduces the special issue 19 of Housing Studies by noting that impairment is often seen as an illness of health issue which determines disabled peoples' experiences of domesticity and

habitation, rather than being seen as a social construction or part of physiology that, in interaction with pejorative societal attitudes and processes, renders the body disabled. The articles in the issue are based on the idea that the focus of attention should be in terms of understanding the nature of disablement in relation to housing in the context of broader social, political, and institutional relations and processes. It directs attention to questions such as what are the social, political, and institutional processes and practices that shape domestic design, and how are they implicated in inhibiting and facilitating the mobility and movement of disabled people? What do patterns of inclusion/exclusion in domestic environments reveal about attitudes and value in relation to disability and impairment in society? In fact we should regard disability as social exclusion on the grounds of impairment, and the sense that while impairment is not the cause of disability, it is the raw material upon which disability works.

In the issue, contributors suggest, impaired bodies have rarely featured in design conceptions or practices in relation to dwellings, and the values and practices of builders, designers and regulators are rarely informed by experiential knowledge or understanding of the implications of building design in relation to impairment. Many countries are producing design guides, codes of practice and statutes to guide designers and builders towards the design of housing that meets some of the needs of disabled people. However, there is limited knowledge about the range of approaches to accessible design in housing, or the extent to which policies and practices are adequate in creating accessible home environments for disabled people. The predominant approach to housing quality and disability is characterised by setting and seeking to attain the appropriate physical standards. This assumes that housing quality can be achieved, first and foremost, by recourse to the application of physical design or technical solutions. However the government's focus on technical standards, as the means to create accessibility, is likely to fail to deliver the quality of dwellings that disabled people require. This is because, in and of themselves, they do little to address an important determinant of deficient design - debates about domesticity and impairment, or of how impairment might make a difference to the lived experiences of domestic life. They also do not incorporate discussion of the need for decentralisation of control over the processes of planning, design and production of dwellings which includes the participation of the disabled resident and their family.

Heywood (2004b) considers the comparative importance of some traditional adaptation needs ('feeding, toileting, bathing, mobility') with an alternative list based on wider factors – retaining dignity, having values recognised, minimising barriers to independence, having some element of choice, and being able to take part in society, based on Winfield (1996). This informs a viewpoint that unless a wider approach to needs and user attitudes is taken, then there will be a significant risk of wasted expenditure on inappropriate accessible features. 'Quality' includes the level of consultation with and control by the end user, and the avoidance of professional 'intrusion'; the needs of the whole household need to be considered, as does the wider external environment of the home. The underlying evidence is drawn from the JRF survey (Heywood, 2001), and the article discusses the importance of the 5 Winfield factors listed above, using quotes from the in-depth interviews. It also includes some detailed recommendations echoing the points made in the review of similar articles above, which provide a useful summary of key issues:

- the general qualitative objective should be to create an attractive home that anyone would be proud to occupy;

- the need for preserved or restored dignity implies both the urgent need to find better swifter solutions to problems of bathing and access to toilets and an emphasis on aesthetic quality in all adaptation work. The use of desirable 'normal' designs and materials such as conservatories or ordinary kitchen units may address this need better than obtrusive specialised provision;
- the need for less pain implies detailed knowledge of the housing issues that cause pain and a focus on producing better solutions (for example, in the area of lifting) and in providing warmth;
- the need for the individual or family concerned to have their values recognised implies time taken to seek out their views and way of life, as Dewsbury et al. suggest, and the restoration of the essential design qualities of their home and garden;
- similarly, the need for people to have choice and control implies more effort by designers to produce models or drawings that will be understandable;
- the need for natural light has to be taken very seriously;
- much expert guidance has been produced on minimising barriers to independence. The important point from the research is to reiterate the importance of also taking into account dignity and self-image, the family's values or the problem of pain;
- the need to take part in society both within the family and outside implies such factors as ensuring children have access to the family kitchen and that external access is always provided;
- the focus of design must be on the needs of the family as a whole. It should take into account the needs of all family members for quiet, sleep, safety and privacy;
- in all design where a family is involved, the issue of plentiful space should be given high priority;
- wherever there is a disabled child, design should allow for a child's needs for play, exploration, study, visits from friends, growth and change.

Mackintosh (2015) sets out that despite the fact that about half of all social housing households have someone who is disabled, there is no clear means to fund needed accessible features. It notes the disproportionate number of disabled (LLID) people who live in social housing (48% of social housing units in 2011 compared to 27% of owner occupied units) and lists the various sources to fund accessible features in the social housing sector. The main relevant issue for this project is the discussion of the way in which the Housing Corporation and DCLG was able to ignore and neglect the need for clear and effective funding of accessible features in the housing association sector. Disabled people include some of the most vulnerable members of society, but are not a cohesive group and lack political influence. The policy making and funding framework for housing associations failed to have any focus, or clear 'champion' to prioritise this need, and the housing association sector itself was too diverse and multi-faceted to provide pressure to address this issue effectively. In addition the overall public presentation, and terms used, did not engage public support or demands for action around the need for additional accessible features. The authors therefore flag these wider socio-political contextual issues as crucial to changing the policy agenda to provide needed support and funding for accessible features.

Jones (2005) provides further analysis of the effectiveness of the Disabled Facilities Grant (DFG) process in Wales, which despite its narrow geographic focus nevertheless provides evidence and analysis relevant to England as well. It contains a very short literature review of previous work on DGFs, which identifies a range of positive and negative factors including the positive impact of accessible features, but also long delays, variable and confusing differences between tenures, inconsistent funding from social services and reduced funding by large-scale voluntary transfer

organisations compared to the previous council housing landlord sector, and poor practices in matching adapted properties to people in need of them. Overall the report has lots of very detailed recommendations around how local authorities should administer DFGs, some of which has been superseded by changes to legislation and funding introduced by the subsequent Coalition Government. Nevertheless it provides a useful checklist of practical issues to address in funding and delivering accessible features, from an administrative point of view.

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Appendix 4: English Housing Survey disability codes

List of adaptations included in EHS (corresponding to broad definition of need for accessible housing)

Bathroom/kitchen

- (1) Graduated floor shower **DSndGrad**
- (2) Low level bath **DSndLBth**
- (3) Shower over bath **DSndSwBh**
- (4) Shower replacing bath **DSndShwr**
- (5) New bath/shower room **DSndBhRm**
- (6) Redesign bathroom **DSndDBth**
- (7) Redesign kitchen **DSndDKtn**
- (8) Relocation of bath or shower **DSndRBth**
- (9) Provide additional toilet/relocate toilet **DSndTlet**
- (10) Bath/shower seats or other aids to help in the bath/shower **DSndSeat**
- (11) Special toilet seat/raised toilet or other aids to help use the toilet **DSndSpcl**
- (12) Adjustable bed or other aids to help get in and out of bed **DSndAdjt**
- (13) Other modification of kitchen **DSndMKtn**
- (14) Specialist taps **DSndTaps**
- (15) Other specialist fittings (e.g. door handles, window catches)

Other internal

- (1) Internal ramp **DShvRamp**
- (2) Grab rail or additional handrails or stair rails **DShvGrab**
- (3) Wide doorways **DShvWide**
- (4) Electrical modifications **DShvElec**
- (5) Additional heating **DShvHeat**
- (6) Entry phones **DShvEnty**
- (7) Individual alarm system **DShvAlrm**
- (8) Hoist **DShvHost**
- (9) Stairlift **DShvLift**
- (10) Extension to meet disabled person's needs **DShvExtn**
- (11) Special adaptations to help visually or hearing impaired **DShvImpr**
- (12) Other Specialist or adapted furniture (e.g rising chairs, specialist lamps) **DShvFurn**

External

- (1) External ramp **DShvERmp**
- (2) Rail to external steps **DShvRail**
- (3) Wide paths **DShvWPth**
- (4) Wide gateways **DShvGate**
- (5) Wheelchair accessible parking space (on plot) **DShvWChr**
- (6) Other external adaptation

Appendix 5: Public Knowledge questionnaire

Good morning/afternoon/evening and thank you for agreeing to take part in this survey.

The survey will take no more than 5 minutes of your time and we would really appreciate your views.

All information received is strictly confidential, and will be dealt with in accordance with the Market Research Society Code of Conduct.

If you are happy to continue, please click on the arrow below to continue

Section A:

Demographic questions to capture age, gender, social grade/employment status, tenure and household composition – public knowledge to provide standard questions.

D1. ALL Please select your gender? SINGLECODE

1. Male
2. Female

D2. ALL Please select the age range that applies to you SINGLECODE

1. Under 18 (T&C)
2. 18-24
3. 25-34
4. 35-44
5. 45-54
6. 55-64
7. 65+ (T&C)

D3. ALL What is the occupation of the MAIN INCOME EARNER in your household? If now retired, please select the most appropriate option that fits the job performed prior to retirement. If currently unemployed for under 6 months, please select the most appropriate option that fits the job performed prior to becoming unemployed SINGLECODE

1. **Higher managerial/ professional/ administrative** e.g. established doctor, Solicitor, Board Director in a large organisation (200+ employees, top level civil servant/public service employee)
2. **Intermediate managerial/ professional/ administrative** e.g. Newly qualified (under 3 years) doctor, Solicitor, Board director small organisation, middle manager in large organisation, principal officer in civil service/local government
3. **Supervisory or clerical/ junior managerial/ professional/ administrative** e.g. Office worker, Student Doctor, Foreman with 25+ employees, salesperson.
4. **Skilled manual worker** e.g. Skilled Bricklayer, Carpenter, Plumber, Painter, Bus/ Ambulance Driver, HGV driver, AA patrolman.
5. **Semi or unskilled manual work** e.g. Manual workers, all apprentices to be skilled trades, Caretaker, Park keeper, non-HGV driver, shop assistant, pub/bar worker.
6. Full time education
7. Full time homemaker
8. Unemployed for over 6 months
9. Disabled or too ill to work

D4. ALL Where in the UK do you live? FLASH MAPSINGLECODE

1. Scotland
2. North West England
3. North East England
4. Yorkshire & Humberside
5. East Midlands
6. East Anglia
7. South East England
8. Greater London
9. South West England
10. Wales
11. West Midlands
12. Northern Ireland

D6. Which of the following best describes you? SINGLE CODE

1. I own my own home outright
2. I own my home with a mortgage or loan
3. I part own/part rent my home
4. I rent my home from my local authority
5. I rent my home from another social landlord
6. I rent my home from a private landlord or letting agent
7. I rent my home from a social housing provider
8. I live rent free
9. Other – please specify

D7. ALL Which of the following best describes your household? **SINGLECODE Randomise, don't randomise 'other'**

1. I live alone (apart from any children living in the household)
2. I live with other adults (apart from any children in the household)
3. I live with my spouse/partner – no children live with us
4. I live with my spouse/partner – we have children living with us
5. Other (please specify)

Q8. ALL How many children under 18 live in your household? **OPEN CODE**

1. 0
2. 1
3. 2
4. 3
5. 4 or more

Section B: Main 12 questions

A. We would like to know first about you about any health conditions, illnesses or impairments you have.

1. Do you [or does anyone in your household] have any physical or mental health conditions or illnesses lasting or expected to last for 12 months or more, which affect you in the following areas:

1. Vision (for example blindness or partial sight)
2. Hearing (for example deafness or partial hearing)

3. Mobility(for example walking short distances or climbing stairs)
4. Dexterity(for example lifting and carrying objects, using a keyboard)
5. Learning or understanding or concentrating
6. Memory
7. Mental health
8. Stamina or breathing or fatigue
9. Socially or behaviourally(for example associated with autism, attention deficit disorder or Asperger's syndrome)
10. Other (please specify)
11. None (T&C)

2. Does this/Do these health problem(s) or impairments mean that you have substantial difficulties with any of these areas of your life?

- | | |
|-----------------------|---|
| (1) Moving | Mobility(moving about) |
| (2) Lifting | Lifting, carrying or moving objects |
| (3) Hands | Manual dexterity(using your hands to carryout everyday tasks) |
| (4) Bladder and bowel | Continence (bladder and bowel control) |
| (5) Speech and vision | Communication (speech, hearing or eyesight) |
| (6) Learn | Memory or ability to concentrate, learn or understand |
| (7) Danger | Recognising when you are in physical danger |
| (8) Balance | Your physical co-ordination (eg: balance) |
| (9) Other | Other health problem or impairment |
| (10) one | None of these |

3. Please look at the list of possible adaptations on the next page, and indicate whether you need any of them (regardless of whether you have them or not); and then whether you have them.

Adaption/Feature	Regardless of whether you have it or not do you need it?		Do you have it?	
	Yes	No	Yes	No
Kitchen/bathroom				
special toilet seat/raised toilet or other aids to help use the toilet				
other specialist fittings (door handles, window...				
shower replacing bath				
new bath or shower room				
bath / shower seats or other aids to help in the bath/shower				
graduated shower floor				
Inside the house				
internal ramp				
stair lift				
hoist				
entry phones				
wide doorways				
Outside the house				
wide gateways				
wide paths				
rail to external steps				
external ramp				
wheelchair accessible parking space (on plot)				

4. **If YES in both column 1 and column 3 corresponding at Q3** pull through to list. You noted above that some of your needs for accessible features have been met. Please select which of these features were in your home before you moved in?

[LIST]

None

5. **If a YES response in both column 1 and column 3 at Q3** What have been the main impacts of having these needs met in your home (thinking about things like your ability to go to work, reducing the need for social care or other support, your household income, or your overall wellbeing?)

6. **If YES in column 1 and NO in corresponding column 3 at Q3** Thinking now about the needs which have not already been met by adapted features, what are the main drawbacks of not having them met (thinking about things like not being able to get to work, needing social care or other support, extra costs or restrictions on your social life and wellbeing)?

B. *This section of this questionnaire asks about you – whether you are working, and the income coming into your household. This helps us understand how you manage to pay for your housing and any special features you might need.*

7. Thinking about your current employment status, are you:

- Working: 30 hours a week or more
- Working: less than 30 hours a week
- Participating on a Government Training Scheme
- Not working because of long term sickness or impairment
- Unemployed and not seeking work
- Unemployed and seeking work
- Retired Full time homemaker
- Full-time student
- Full-time carer
- Other (please specify)
- don't want to say

8. **If YES in column 1 and NO in corresponding column 3 at Q3** **How have your unmet needs impacted on your work life or consideration of work?** If you had more of the features or adaptations which you need, would you be more likely to seek work or consider whether it might be possible to work, and in what ways?

9. Thinking about the total household income (which includes your own income and the income of anyone else who lives with you) what is your net weekly **[household] income** (all sources, EHS bands):

- Less than £100 a week
- £100 but less than £200 a week
- £200 but less than £300 a week
- £300 but less than £400 a week
- £400 but less than £500 a week
- £500 but less than £600 a week
- £600 but less than £700 a week
- £700 but less than £800 a week
- £800 but less than £900 a week
- £900 but less than £1000 a week
- Over £1000 a week

- Don't know
- Prefer not to say

E. Finally we would like to ask about assets you may have that would allow you to fit additional features and adaptations, or explore other options to better meet your needs.

10. If you, or someone in your household has any assets (such as savings or ownership of a home) which you are thinking of using to provide features you need, what are those features and what benefits would they bring?

If YES in column 1 and NO in corresponding column 3 at Q3

If you, or someone in your household are considering using private funding (e.g. savings) to add accessibility features to your home, what are those features and what benefits would they bring?

Feature	Benefit of adding this to your home

- I or someone in my household is not considering using private funding to add accessibility features to the home (**closed option**)

If YES in column 1 and NO in corresponding column 3 at Q3

11. Have you considered any of the following? What other alternatives have you considered to meet these needs:

- buying an accessible home which met your needs, if one were available in the right place?
- moving to an accessible rented home, which met your needs, if one were available in the right place?
- moving in with family or friends to a home which met your needs?
- None of these

[IF answer is "none of these"]

12. Why do you say "none of these"?

- Happy where I am
- Too much disruption to move
- Couldn't afford it
- Don't want to spend any more on housing costs
- Can't see there would be many benefits

Conclusion

We would like to invite you to take part in further research to understand in more detail the information you have provided about your need for special features in your home. This would involve a telephone discussion lasting no more than 20 minutes with the lead researcher on this project from the London School of Economics. Would you like to take part?

1. Yes
2. No

ASK THOSE WHO CODED 'YES'

Thank you for your interest in our further research. Your input is greatly appreciated. For the researcher at London School of Economics to contact you we will need to pass on a telephone number to reach you on and your full name. *This information will be used only for this research and will not be used in any way that could identify you or your responses or be passed on to any party outside of LSE.*

Please enter your telephone number below and indicate the best time of day for us to contact you. We look forward to speaking to you.

Phone number

The best time of day to contact me is

1. Morning (after 9am)
2. Lunchtime
3. Early afternoon
4. Late afternoon
5. Early evening (before 7pm)
6. I've changed my mind, I'm not interested in participating

Appendix 6 : In-depth questionnaire topic guide

First open respondent bespoke narrative file entry with full details

1. Can I just confirm some of your details from the internet survey please?

Prompts: Name, Region, tenure, household, work status, main health problem/ impairment

2. Like to talk about some of the features of your home which meet some of the particular needs you have.

Your home has [mention features] some features which help you with these needs

Can you tell me a bit more about how having these features has improved your quality of life? [Also review previous answer to prompt]

Prompts: work and income; help from social services; social life

3. I'd like to turn to unmet needs now. You have told us that you [mention unmet needs] Could you tell me a bit more about how these affect you, please. [review previous answer as above]

Prompts: work and income; help from social services; social life;

4. Options: [check 10a, 11]. I'd like to ask you about the future, and whether you are considering ways in which you could have more of these needs met.

Getting council/grant/own resources to add features; Getting landlord, using savings. Move to other place, Buying

ALSO tenure, savings, help from the council

5. We are particularly interested in home ownership. You have said that [check].

PROMPT: is it design, cost, or location that is problem

6. Finally, is there anything you would like to add about changes you would ideally like to improve your home, or any new home you might move to, so that it would improve your overall quality of life?

Appendix 7: English Housing Survey disability codes and Building Regulations categories

			Included as correlating with an aspect of Building Regulations Cat 2 and 3
Survey	Area	Adaption/Feature	
EHS	Kitchen/Bathroom	shower over bath	N
EHS	Kitchen/Bathroom	relocation of bath or shower	N
EHS	Kitchen/Bathroom	other modification of kitchen	N
EHS	Kitchen/Bathroom	low level bath	N
EHS	Kitchen/Bathroom	specialist taps	N
EHS	Kitchen/Bathroom	redesign kitchen	N
EHS	Kitchen/Bathroom	special toilet seat/raised toilet or other aids...	Y
EHS	Kitchen/Bathroom	other specialist fittings (door handles, window...	Y
EHS	Kitchen/Bathroom	shower replacing bath	Y
EHS	Kitchen/Bathroom	new bath or shower room	Y
EHS	Kitchen/Bathroom	redesign bathroom	N
EHS	Kitchen/Bathroom	providing additional toilet / relocating toilet	N
EHS	Kitchen/Bathroom	bath / shower seats or other aids to help in the...	Y
EHS	Kitchen/Bathroom	graduated shower floor	Y
EHS	Interior	electrical modifications	N
EHS	Interior	special adaptations to help visually or hearing	N
EHS	Interior	hoist	Y
EHS	Interior	individual alarm system	N
EHS	Interior	entry phones	Y
EHS	Interior	additional heating	N
EHS	Interior	extension to meet disabled person's needs	N
EHS	Interior	internal ramp	Y

EHS	Interior	adjustable bed or other aids to help get in / out..	N
EHS	Interior	other specialist or adapted furniture (rising...	N
EHS	Interior	wide doorways	Y
EHS	Interior	grab rail or additional handrails or stair rails	N
EHS	Interior	stair lift	Y
EHS	Exterior	wide gateways	Y
EHS	Exterior	wheelchair accessible parking space (on plot)	Y
EHS	Exterior	other external adaption	N
EHS	Exterior	wide paths	Y
EHS	Exterior	rail to external steps	Y
EHS	Exterior	external ramp	Y

For reference: DCLG's Approved Document (M)

http://www.planningportal.gov.uk/uploads/br/BR_PDF_AD_M1_2015.pdf