

# The social and economic value of wheelchair user homes

## Summary report

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## Executive Summary

People who use wheelchairs can benefit in many ways from living in homes which are designed to meet their needs. They can enjoy a much greater independence and ability to do everyday tasks such as showering, cooking, using all areas of the house and garden, being able to work, and using all the amenities of their home. This can lead to an overall increase in their confidence and wellbeing, and greater engagement in social and community life.

Accessible homes can also be much safer, reducing risks of accidents or falls at home, and considerably reduce the need for other people to be regularly available to assist with everyday life – including family members, informal carers, or local authority care and support staff.

Recent proposals to change planning regulations will mean, once implemented, that all new homes are required to meet an inclusive design standard called the 'accessible and adaptable design standard', which is set out in building regulations in 'Approved Document M'. This has been widely welcomed by many disabled people and others, as it will provide homes that can be adapted to meet many of the changing needs of households over time. But there are still no regulations which require the building of a basic proportion of new homes to a standard which meets the needs of wheelchair users. In this report, we have been commissioned by Habinteg Housing Association to review the existing evidence around potential benefits to individual wheelchair users and the public purse of increasing the availability of wheelchair accessible housing to meet current needs, and compare those benefits to the additional costs of building to that accessible standard.

The report focuses on three main types of household where there is a need for this type of housing - working age adult wheelchair users, households with children in wheelchairs, and households where there is a retired or older wheelchair user. We have explored what some of the recent reports, research, and government impact assessments have evidenced about the costs and benefits of accessible homes. We have also made estimates of the sizes and tenures of new homes that may be needed for each group.

We have drawn on some principal overview studies which have already been undertaken to review the extensive literature relating to the benefits of accessible homes. That provided a robust evidence base to highlight where the most likely benefits are to be found. This then allowed us to systematically review the extent to which these benefits might be likely to accrue to wheelchair users in each group. The benefits were then monetised, using contemporary published sources of costs, for example of NHS treatment of falls, or the current published hourly costs of home care visits by local authorities. The full picture was consolidated into a ten-year 'net present value' table to provide an estimate of the ratios of costs to benefits. We also interviewed a small cross section of wheelchair users to provide some direct context and views from wheelchair users to inform this analysis.

The details and sources of all the figures used are set out in an accompanying Workbook.

The main areas of benefit, which vary in importance across the groups (for example, people in later life are assumed not to work but to be at greater likelihood of needing residential care) are:

- Reducing the cost of care assistance in the home
- Higher disposable income from greater opportunities to work

- Reduced welfare benefits and greater contribution to tax and National Insurance
- Improved confidence, independence, and self esteem
- Greater social inclusion and community participation
- Delaying the need for permanent residential care
- Reduction in delay of hospital discharges
- Reduction in trips and falls in the home

In terms of monetised ratios of costs to benefits, we estimate that:

- For a working age wheelchair user adult, the benefit of living in a wheelchair user home could be over £94,000, compared to a cost of just under £22,000 – which suggests around four times the benefits compared to the costs;
- For a later years wheelchair user household (aged 65 and over), the benefit could be £101,077, with a cost of around £18,000 – which suggests around five times the benefits compared to the costs;
- For a household with a child who is a wheelchair user, the benefit of living in a suitable wheelchair user home could be £66,000, with costs incurred around £26,000 – which suggests about two and a half times the benefit compared to the costs.

In dealing with uncertainty, risk, and optimism bias, we have tried to indicate the variation of costs and benefits by separating out types of wheelchair user households to three different groups. Nevertheless, there are considerable variations in the needs of people that use wheelchairs which mean that the specific figures for costs, benefits, and ratios are likely to vary from case to case. To address this, we have also re-calculated the ratios with the assumption that the costs were 10% higher, and the benefits 10% lower, as set out in more in the full report. As is explained in the main report, we have also made and documented cautious estimates about the likely extent of benefits being realised. In brief, taking these uncertainties into account, the overall benefits still present as positive.

We also looked at how these benefits might reduce costs for the main stakeholders currently providing services, and increased contributions to tax and national insurance. This suggested that the overall per household contributions annually could be:

<b>Benefits to different stakeholder groups, per household type per year</b>			
	<b>Working age</b>	<b>In later years</b>	<b>Household with child wheelchair user</b>
Benefits to NHS	£104	£96	£386
Benefits to Local Authorities	£4,778	£9,218	£1,960
Benefits to Government through tax, NI, and reduced benefit expenditure	£2,423	£0	£731

Again, these estimations of benefits to stakeholder groups should be regarded as indicative of the nature and extent of the gains.

In summary, the research has demonstrated that there are very likely to be benefits from building more wheelchair user homes for individuals, households, and wider society, and that these benefits will be greater than the cost of building to the higher accessibility standard.

## The research

### *What is “wheelchair accessible housing”?*

For all new buildings, or those undergoing material alteration to address needs, building regulations (Approved Document M, Volume 1) currently set out three levels of ‘accessibility’<sup>1</sup>:

- Category 1: Visitable dwellings M4(1) – the current mandatory baseline
- Category 2: Accessible and adaptable dwellings M4(2) – an inclusive design standard designed to be adapted to the changing needs of occupants over time
- Category 3: Wheelchair user dwellings M4(3), of which there are two standards – adaptable and accessible. M4(3) ‘wheelchair user adaptable dwellings’ are built to be adjustable for occupation by a wheelchair user, whereas accessible dwellings should be constructed and ‘fitted out’ for immediate occupation by a wheelchair user.

Following a consultation in 2020, government announced in July 2022 its intention to raise the mandatory access standard for new build housing to Category M4(2) (although at the time of writing no implementation date for this new baseline has yet been announced). New requirements will see M4(2) set as the minimum standard for all new homes, meaning all new homes will require step-free access to all entrance level rooms, as well as facilities and other features that make the homes more easily adaptable over time<sup>2</sup>.

Some adaptations can be made to M4(2) homes, such as installing a level access shower, stairlift, or bathroom grab rails, to make them more suited to disabled occupants. However, these adaptations are not going to be the solution for all wheelchair users, and additional adaptations would only be achieved at significant cost to the individual unless funding can be gained through the UK Disabled Facilities Grants. Homes built to meet the building regulations M4(3) standard are designed to meet the daily living needs of a household that includes a wheelchair user. Such homes provide sufficient accessibility, and in particular sufficient space, to make them easy to move around and use all the key amenities.

Whilst the intention to raise the mandatory baseline accessibility standard to M4(2) was a largely welcomed announcement, there was no introduction of national policy or mandatory targets on the number of new homes built to M4(3) standards, as disability campaigners had hoped for. This standard of accessibility has been left to local authorities and local planning policy to determine, based on ‘local demand’ for wheelchair user homes. Government argued that including mandatory figures for wheelchair user M4(3) homes could reduce the overall number of homes being built, as the costs may be seen as prohibitive to developers, and therefore reduce the overall supply of accessible housing. This report provides evidence around the wider costs and benefits which could be achieved were more M4(3) homes to be provided, as a contribution to the evidence base for this discussion.

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<sup>1</sup> <https://www.architecture.com/knowledge-and-resources/knowledge-landing-page/accessible-housing-in-england>

<sup>2</sup> <https://www.gov.uk/government/consultations/raising-accessibility-standards-for-new-homes/outcome/raising-accessibility-standards-for-new-homes-summary-of-consultation-responses-and-government-response>

## ***The need for wheelchair accessible housing***

It is estimated that 400,000 wheelchair users in England are living in unsuitable accommodation, with 20,000 estimated to be on local authority waiting lists for a wheelchair user home. Note that some people using wheelchairs use them primarily outside the home, and that we have focused our work on the households who need to use their wheelchairs as part of everyday activities inside the home. Research published by Habinteg in January 2023 has shown that a wheelchair user joining a local authority waiting list could have to wait up to 47 years to be offered a suitable newbuild property<sup>3</sup>.

In the absence of national policies or targets around the development of newbuild, fully wheelchair accessible dwellings, some local authorities have already set minimum targets for wheelchair user homes. The *Liverpool Local Plan* sets out that 10% of all new houses and flats need to meet M4(3) standards of wheelchair accessibility<sup>4</sup>. The *London Plan* of 2004 set a policy requiring all London boroughs to plan 10% of all new homes to be built to M4(3) standards.<sup>5</sup> However, whilst some local authorities are including a mandated target for building new wheelchair user homes in their local planning policies, a BBC Investigation in December 2022 found that three of England's 10 major cities had no plans for providing wheelchair accessible homes; and 60% of councils responding to the BBC's survey had either no access standards in place or were using outdated policies<sup>6</sup>.

## ***The benefits of wheelchair accessible housing***

The shortage of accessible homes has serious impacts on wheelchair users, who risk injury, loss of independence, or face high costs for adapting their existing homes or moving into specialist accommodation.

According to earlier research by the [Centre for Analysis of Social Exclusion](#) at LSE, people with an unmet need for accessible housing are estimated to be four times more likely to be unemployed or not seeking work due to sickness or disability, than disabled people without needs or whose needs are met<sup>7</sup>. According to the social model of disability, it is the barriers that society puts in place that makes a person disabled, rather than an individual's physical or mental impairment. Where a home is not accessible, or does not meet the needs of an individual, there can be significant social and physical impacts that entrenches 'disability'. This includes the inability to complete self-care (washing, changing clothes, reaching the bathroom, preparing food) or home-care (house cleaning) activities; worsened mental health and wellbeing; or having to move to another residence or into a care environment<sup>8</sup>.

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<sup>3</sup> <https://www.habinteg.org.uk/latest-news/wheelchair-users-subjected-to-decadeslong-wait-for-new-accessible-housing-2004/>

<sup>4</sup> Liverpool City Council. (January 2022). *Liverpool Local Plan 2013-2033*. [liverpool.gov.uk/media/1tkbedcv/01-liverpool-local-plan-main-document.pdf](https://liverpool.gov.uk/media/1tkbedcv/01-liverpool-local-plan-main-document.pdf)

<sup>5</sup> Mayor of London. *M37 Accessible Housing*. [https://www.london.gov.uk/sites/default/files/mayor\\_of\\_london\\_-\\_m37\\_accessible\\_housing.pdf](https://www.london.gov.uk/sites/default/files/mayor_of_london_-_m37_accessible_housing.pdf)

<sup>6</sup> <https://www.bbc.co.uk/news/uk-62638644>

<sup>7</sup> Provan, Burchardt & Suh (July 2016) *No Place Like an Accessible Home: Quality of life and opportunity for disabled people with accessible housing needs*. London School of Economics: London <https://www.lse.ac.uk/business/consulting/reports/no-place-like-an-accessible>

<sup>8</sup> Weisel, Iland. (2020). *Living with disability in inaccessible housing: social, health and economic impacts*. The University of Melbourne: Melbourne: [https://disability.unimelb.edu.au/\\_data/assets/pdf\\_file/0010/3969109/Accessible-Housing-Research-Report-22-October-2020.pdf](https://disability.unimelb.edu.au/_data/assets/pdf_file/0010/3969109/Accessible-Housing-Research-Report-22-October-2020.pdf)

Conversely, an accessible home can have hugely positive impacts on a wheelchair user's health, wellbeing, independence, and general lifestyle, with economic and social benefits to the individual and to wider society.

In March 2023, Habinteg commissioned the Housing and Communities research group at the London School of Economics and Political Science (LSE) to undertake research into the social and economic value of wheelchair user homes. The research was designed to review and apply existing and extensive research evidence around the costs and benefits of accessible housing to the specific question of providing more new build wheelchair accessible homes.

There has been extensive work to identify and quantify these benefits over the past few years, including several Government and international studies. We have explored some of the key examples of this work on the benefits in this report, and then specifically addressed how the clearly evidenced benefits stack up against the likely additional costs to provide new homes to the required accessibility standards.

The team also conducted 17 interviews with wheelchair users, to understand how living in a suitable wheelchair user home impacts them, or how they are affected by the lack of a suitable home. These interviews provided insight into the impacts of wheelchair user homes on varied aspects of life, including family cohesion, independence, parenting, community engagement, and physical and mental wellbeing. We have used quotes from the interviewees in this report with pseudonyms to protect participants' privacy.

## The cost-benefit findings

We have used the overall cost and benefit information in a way that picks out how wheelchair users at different stages of their lives might be affected over a discounted ten-year period. For example, people of working age may benefit from being more able to take up opportunities to work, which is not the case for retired people. Similarly, people in later life may be more at risk of falls and more in need of homecare services, and a suitably accessible home may allow them to remain there for longer, without having to move to residential care. Children, in contrast, may have very different development, social, and educational needs which can be met by wheelchair accessible housing.

Table 1: Summary of new present value of costs and benefits, and ranges

<b>Net present value of benefits over 10 years starting in Year One</b>			
	<b>Working age</b>	<b>In later years</b>	<b>Household with child wheelchair user</b>
<b>Total benefits 10 year NPV</b>	<b>£94,098</b>	<b>£101,077</b>	<b>£66,902</b>
<b>Capital costs (on purchase in Year 0)</b>			
<b>Average capital investment cost</b>	<b>£21,923</b>	<b>£18,023</b>	<b>£26,220</b>
<b>Cost benefit ratios</b>	<b>4.3</b>	<b>5.6</b>	<b>2.6</b>
<b>Adjustment for uncertainty and risk - best</b>	<b>5.2</b>	<b>6.9</b>	<b>3.1</b>
<b>Adjustment for uncertainty and risk - worst</b>	<b>3.5</b>	<b>4.6</b>	<b>2.1</b>

The **benefit to cost ratio** indicates the overall value for money from building a new wheelchair user home. It shows that across all groups, there is greater financial and social benefits, both to individuals and to the public purse, than the costs incurred. **Each new wheelchair user home built would therefore contribute significant financial and social benefits for individuals and wider society.**

- For a working age wheelchair user adult, the benefit of living in a wheelchair user home could be over £94,000, compared to a cost of just under £22,000 – a **benefit to cost ratio of around 4.3:1**
- For a later years wheelchair user household (over 65 year of age), the benefit could be £101,000, with a cost of around £18,000 – a **benefit to cost ratio of around 5.6:1**;

- And for a household with a child who is a wheelchair user, the benefit of living in a suitable wheelchair user home could be £66,000, with costs incurred around £26,000 – a benefit to cost of **around 2.6:1**.

**NOTE:** To estimate the main benefits of building new wheelchair user homes, the research team reviewed a wide range of existing research and government documents to establish understand the range of evidenced benefits to wheelchair user or suitably accessible new homes. There is an accompanying excel workbook which is published alongside this report. That workbook and the main report provide details of each source for all the estimates of incidence of cost and benefits, and the level of costs and benefits for each of the figures used in the report (including in the “Inputs” worksheet). This is set out in more detail in the main report published by the report team, which also includes a full bibliography of those sources. and any specific questions about how the figures in this summary have been arrived at. The spreadsheet also sets out how benefits are allocated to the different groups of people and how the costs and benefits are used to estimate the final values and ratios. Wheelchair users have a wide range of specific needs and although we have tried to take account of three main groups of needs in the household type approach, it is nevertheless the case that these estimates of costs and benefits are likely to provide only a general indication of the extent of the costs and benefits involved. Although specific figures have been arrived at, these should be regarded as indicative. The amounts and ratios cited are important in that they indicate that benefits are likely to be greater than costs, but individual cases are likely to show considerable variation. In addition, it would be reasonable to suggests that there should be around 10% likely plus or minus variation in terms of the confidence levels of the overall figures for both costs and benefits. This variation has also been set out above, comparing the best (ie lower cost and greater benefit) and worst (ie higher cost and lower benefit) variations.

## How have these costs and benefits been worked out?

### *Costs*

To understand the costs of building new wheelchair user homes, the research team reviewed government documents on the costs of providing additional M4(3) accessibility features in a new home, and the costs of providing additional space for these features. Since government has announced that the M4(2) standard is to become the regulatory baseline, the team calculated the ‘extra’ costs of M4(3) homes using the difference between the cost of M4(2) homes with the cost of the equivalent type of dwelling built to the M4(3) standard.

This included taking account of the fact that a family with a child who uses a wheelchair would need a different size of home from a later life couple, and that some homes would be flats while others were terraced or individual houses. In addition, some would be likely to be provided and allocated by the local authority or housing association, whereas others would be sold for owner occupation (and hence more likely to be Category 3a homes). We have set out in the main report and workbook how we used the available information to estimate what proportion of new homes would be needed in all these cases, then produce an average cost for each of the three groups.



## ***Benefits***

This research identified **eight key areas of benefit** that building new wheelchair user homes can bring to wider society, including government and NHS, and individual households.

### **1. Remove or reduce the cost of care assistance in the home**

Adult care services represent a major cost for local authorities, therefore even a small reduction in that spend is important in helping to reduce growing demand for these services.

Living in a wheelchair user home means that individuals are less likely to need assistance to overcome the inherent design restraints of non-accessible homes (e.g. will require less support with using bathrooms, personal care, cooking and work related activities), are likely able to move around the home more independently, and carry out more everyday tasks for themselves. This will reduce the level of care assistance required in the home, creating benefits for the local authority and the state, and for the individual.

*“Even though I’ve got live-in care, I can go to and from as much as I want to, I can go outside. I don’t need to ask people every time to open the door for me or to move this out the way, so that is a real peace of mind. It just gives you more freedom and more ease, yeah, to live your life...it’s not an existence. Then it becomes a bit more of a life, really.”* [Michael]

### **2. Higher disposable income**

From our own previous research<sup>9</sup> cited above, we know that disabled people living in suitable accommodation are more likely to be in paid employment than those living in an inaccessible home. Work can increase the household’s disposable income, enhance career development, and increase self-esteem. This can also reduce the reliance on, and costs of, welfare benefits, as well as providing tax income for the state as a direct consequence. For families with disabled children, a suitable home can provide more opportunities to access part-time work, allowing a parent that previously did not work to do so, and thereby providing additional disposable income for families.

A wheelchair user home may also require less ongoing adaptations, leaving the individual with more income to spend on other aspects of their life.

*“So basically, I think we got a little bit of help, but I mean, again, fortunately I worked. I went straight back to work after five months in hospital and straight back to work as soon as I could. Because you’ve got a family, you’ve got to look after them and everything else. ... I’m conscious that we had, money and...that’s where we spent our money. My wife always said we’re going to make it so that it works for you and then it works for everyone.”* [Peter, working age wheelchair user]

*“I started to use a wheelchair in 1997, and at the time I was living on the 13th floor of a block of flats. So, I just moved to a ground floor property, which is great, but it just wasn’t enough space for everything. I wasn’t working at the time and **certainly I wouldn’t be able***

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<sup>9</sup> <https://sticerd.lse.ac.uk/CASE/NEW/PUBLICATIONS/abstract/?index=5155> No Place like and Accessible Home, CasePaper 109 (2016)

*to work in the job I am now at if I still lived in that property. I just wouldn't have the space for all the equipment that I need. So, it's not just the quality of accommodation and its suitability for living, but it's affecting everything else to do with my life"* [Edward, working age wheelchair user]

### **3. Reduced welfare benefits and greater contribution to tax and National Insurance**

Being able to work also reduces dependence on welfare benefits, as well as contributing to the public purse through higher tax and national insurance contributions.

*"So, it's been really good, and I have to say one of the reasons, I've always been very grateful that I'm in a job is because I know that I probably wouldn't be able to afford the mortgage if I weren't in a job. I don't think benefits would be enough to cover it."* [Joe, working age wheelchair user]

### **4. Improved confidence, independence, and self esteem**

Living in a non-accessible home can affect wheelchair users' confidence and independence, particularly for those in later life. A home that enables a wheelchair user to be more independent and that they can live in and get around safely and easily, can be a boost to an individual's confidence, in and out of the home. For young adult wheelchair users, a wheelchair user home can also support their transition out of the family home and into an independent life.

We used the [Social Value Bank](#) to develop a monetary value for this increase in confidence, independence and self-esteem. The Social Value Bank is a tool developed by the Housing Association Charitable Trust (HACT) to help organisations measure the value of outcomes that can be hard to financially quantify, such as wellbeing, independence, secure and suitable housing and better quality of life.

For working-age households and later life households, this increase in confidence, independence and self-esteem has been evidenced by HACT to be the monetised equivalent to a one off benefit of £9,846, over the ten year period.

*"It's hugely frustrating and, as somebody pointed out to me, in those sort of situations you have to leave your dignity at the door because you just ...you have to be helped places if you have to go somewhere ...Life becomes difficult because you have to do everything differently and that stuff, it's almost what people take for the simple things in life, like going to the toilet, like going into your garden, like having a shower. Yeah, you can't do those as you'd like to."* [Peter, working age wheelchair user]

*"It's fantastic and it's been fantastic since I've moved in it. It enables me to have independence from my parents. It means that I don't always have to live with them and they don't always have to put up with me!... It enables me to live independently and it means that I can do everything I need to do care-wise, and then I've got height adjustable desks and everything so I can work. It enables me to work and live my life...."*

*I'm sure that if I was still living at home in my 30s, much as I love my parents dearly, I wouldn't see a future and beyond living with them. And I'd worry about what happens when they became too ill to support me. I still do worry about that, but from my own perspective, just not to the same extent...this is crucial. ...Say I wanted to go to the pub, my parents would have never objected. But I would have felt slightly self-conscious coming home on the Friday or Saturday night at like 12:00am when they would have been in bed for an hour and a half - now it doesn't disturb them at all. I can just go whenever I want and I don't have to fit in with their routines.”*[Joe, working age wheelchair user]

*“I could move around in my kitchen, I could open the drawer, I could put things in the bin. You know, I could sit in my front room if I wanted to. I could sit in my front room in my chair. I could move around, I could go in the front door, out the back door...I was living a life that I chose to live, not one that was chosen for me.”*[Tracy, working age wheelchair user]

## 5. Having a secure and appropriate home enables greater social inclusion and community participation

Moving to a permanent home which fully meets the needs of wheelchair user provides long term stability and can enable improved social and family relations. Individuals who move to a permanent home which fully meets their long term and disability related needs can settle into the home and neighbourhood, are able to easily leave and return home, have friends and family over, and engage in other social and community activities more regularly.

A wheelchair user home also provides opportunities for other wheelchair users to visit and socialise within the home. For families with children, a wheelchair user home can create more space for play activities and to have friends around. Building more wheelchair user homes in the places where wheelchair users already live and have social networks will mean that wheelchair users can stay close to their existing support and social networks and community assets that they value. Greater social inclusion and community participation can improve individuals' wellbeing and reduce isolation.

Again we have used the Social Value Bank cited above to estimate the social and economic value of having access to a secure and fully accessible home meeting their needs.

*“So you noticed that **basically my place and my parents place are the only dwellings that I can actually get in, ever. And I never meet anyone else in their house... So basically, it limits where you can go, and there's only two properties I've ever been in.”*** [Joe, working age wheelchair user]

*“Sometimes I think it's hard, the impact isn't just on me, it's also on my husband...My brother and my sister-in-law, they've bought a beautiful new home and it is literally probably two years old. I can't get in it, not even in the front door. You know, I could sit at the front door cause it's flat, but then you've got a very tight back garden, but I can't get in the back door... **So, there's that impact on family that I want to be able to spend time with them, but I know that it can't happen at their house.** They constantly have to come to me and that's not fair. You know, I want to be able to see my niece in her surroundings and play with her toys.”*[Tracy, working age wheelchair user]

*"The only other thing I was thinking about, if you have – not my situation – a child that is disabled, they will quite often make a downstairs room into a bedroom and maybe add a wet room, but I think, even then, building a bungalow for them would be a better option. Like when I was a child, I liked being able to go into my brother's room and you are kind of excluding half of the house to someone, and I just think that's not really an answer...It is very excluding I think – it would be nice for everyone to live together as a family."* [Carla, working age wheelchair user]

## 6. Delaying the need for permanent residential care

Some people with unmet disability access needs may move into residential care as their home is no longer suitable for their needs, or does not provide adequate services or space to receive at-home care. This can more often affect people in later life with progressive disability needs. Home accessibility features can enable disabled people to live at home rather than in residential care, or delay the move to residential care. The cost of residential care is high compared to providing care in an individual's own home.

A significant benefit therefore of building new wheelchair user homes is to avoid or delay the need for permanent residential care, and enable wheelchair users to continue to live in their own homes for longer, with their families, and in the communities they are anchored to.

*"So you know, I definitely saw people in spinal rehab whose discharge from hospital was delayed - in some cases by years, because of a lack of being able to find somewhere accessible for them - and people who are far too young going into care homes, on discharge from the likes of spinal rehab..."* [Meg, working age wheelchair user]

*Well, then they said perhaps you really need to think about moving into our care home instead. And I turn around and said, I'm 42. I don't need to be in a care home. I can look after myself."* [Jane, working age wheelchair user]

## 7. Reduction in delay of hospital discharges

The lack of an accessible home can be a significant barrier to people being discharged in a timely way from hospital. This leads to longer stays in hospital, often when people are medically well enough to go home, and corresponding costs to the NHS. Building new wheelchair user homes will enable faster discharge from hospital, so that wheelchair users can return home safely and continue their recovery in a suitable, safe setting.

*"From hospital you couldn't be discharged until the house was suitable. Obviously I couldn't get in the downstairs toilet and the bedrooms were upstairs. So, on discharge, I had the hospital bed put in the dining room effectively, which became a bedroom...And...fortunately, we live near a local hospice and they let me use the showers and toilets. So, it was like that for the first four or five months..."* [Peter, working age wheelchair user]

## 8. Reduction in trips and falls in the home

Approximately 6.2% of people with unmet accessibility needs are affected by falls and require ambulance and hospital assistance each year. For the later life age group, more vulnerable to fractures from falls, this can lead to more intensive NHS treatment. Building new wheelchair user homes can limit this risk factor, as people's accessibility needs are met in the home and therefore they are less likely to have a trip or a fall, saving the NHS money, and the individual the risk of personal injury.

*"I don't have the anxiety of am I gonna slip and really hurt myself? You know, the whole process of having a shower as opposed to what I was doing before makes it quite a nice experience. And I've never had that, where I've had no concerns or anxieties or worries about falls or equipment not working...It sounds so small [but] it changes your complete mindset. You know, everyone should have access to safe facilities in their own home."*  
[Robert, working age wheelchair user]

### ***Financial analysis of benefits***

Each of the eight benefits discussed above were costed, some through using contemporary health and social care data, others through social value calculations, to show the monetary value of each benefit. As noted above, the details of all the costings and assumptions are set out in the accompanying full report and workbook. Some elements of benefit gave a one-off monetary value, whilst others provide savings which would otherwise continue to need to be met over the 10 year period of the analysis (for example the need for specific types of home care).

In line with recommended good practice, we calculated the discounted monetary value (net present value) over a 10 year period, to cover both one-off benefits and ongoing benefits that occur in that period. The outcomes are set out in Table 1 above.

The research team noted that the positive financial impact of wheelchair user housing would be attributed to different area of public services. This analysis, expressed **per household type, per year** shows that for each new wheelchair user home built, there are significant savings to the NHS and government, and particularly to local authorities. Moreover, government also benefit from revenue gains in uplifted tax and NI contributions when wheelchair users are able to take up employment due to having a home that meets their needs.

These benefits are calculated per single new wheelchair user dwelling. So, if one hundred new homes were provided, the net gain to the public purse would be 100 times greater.

*Table 2: Benefits accruing to different public sector stakeholders, per household*

<b>Benefits to different stakeholder groups, per household type per year</b>			
	<b>Working age</b>	<b>In later years</b>	<b>Household with child wheelchair user</b>
Benefits to NHS	£104	£96	£386
Benefits to Local Authorities	£4,778	£9,218	£1,960
Benefits to Government through tax, NI, and reduced benefit expenditure	£2,423	£0	£731

## Interview findings

As well as providing valuable reflection on the benefits of living in a wheelchair accessible home, the interview participants spoke about their experiences in searching for and securing suitable places to live. We summarise the headlines from the interviews below:

### Wellbeing

- Living in a home that is fit for purpose and meets people's needs has a clear impact on wellbeing and health.
- The cost-benefit analysis has also shown there are measurable and quantifiable improvements in wheelchair user's sense of independence and dignity when in a suitable home.
- Interview participants shared how important it was for their home to be a haven and a place that meets their needs, in contrast to challenges in other places and spaces. Many interviewees talked about the lack of accessibility in public places and buildings including offices, shops, public transport, friends and family homes not being visitable, and how that impacted on their wellbeing and feeling of inclusion.
- For participants who were not living in a wheelchair accessible home that met their needs, their wellbeing was impacted negatively with many day-to-day and long-term challenges encountered. Even small things inside the home, termed *micro-annoyances* by one interviewee, could compound other difficulties encountered when adapting to changing circumstances and challenges outside the home.

### Housing choice

- Respondents had low expectations that a home that will meet the needs of wheelchair users will be available quickly and easily at the point it is needed – both for social rent and for purchase. Interviewees offered a wide understanding of the potential in existing homes that can be adapted, which is crucial when too little accessible stock is currently available.
- A majority of those we spoke to had moved into properties with potential to meet their needs – both social housing and owner occupier properties. Building more new wheelchair user housing could vastly increase the housing choices of wheelchair users and mean that they do not have to undertake costly and difficult adaptations.
- The size of homes and rooms is very important to wheelchair users, as well as having suitable storage options and access to outside space.
- Interviewees talked of a lack of family sized (3 bedroom +) wheelchair user homes, and limitations on bungalows as only available for the over 65s.
- Interviewees felt that there is no one size fits all solution for disabled people and wheelchair users. People will want different things from their home and will have different access requirements and priorities. Homes need to have basic accessibility

features and the capacity to be adapted easily, which newbuild wheelchair user homes could provide.

- We need to be designing and building new homes that incorporate smart home features, and forward-looking design, to create modern wheelchair user homes.

### **Housing allocation and management**

- A number of people talked about the importance of identifying and maintaining accessible homes for future use by wheelchair users. We found examples of accessible homes not being recorded as such, and being used as general needs housing instead.
- Statutory 'gatekeepers', such as local authority housing departments and occupational therapists, play a crucial role in supporting wheelchair users to find a home that suits their needs. They sometimes lack appropriate training and awareness of what can be done to properties, and also about access to funding.
- For some interviewees, it was felt there is an emphasis on wheelchair users themselves to advocate for what they need, and to be aware of what technologies are available, or what interventions are needed.
- Many of the participants had found their homes by accident rather than design, for example by knowing the local area, having a contact, or being in the right place at the right time.
- There are systemic issues related to the allocation of the housing that is available, and housing being offered because it is classed as 'accessible', even when it does not meet the individual needs of the potential household. There was a sense that "any adaptation will do", for example, homes with a stairlift being offered even if that was unsuitable for the needs of the individual wheelchair user.
- There is a challenge of matching supply with demand, due to the lack of accessibility data held by estate agents and developers, and a lack of understanding by them of both the needs of wheelchair users, and how to quickly match new supply to demand for this housing.

### **Funding**

- There is a significant funding challenge for those who own their own homes, but are unable to move on to a property that will meet their needs in the same area. Often, there is an 'equity gap' between the sales price of existing homes that wheelchair users own and are looking to sell, and the properties they are looking to buy to provide a suitable replacement that meets all their needs.
- Due to the current lack of newbuild wheelchair user homes, the Disabled Facilities Grant plays a vital role in enabling adaptations to existing properties, but again there are gaps for those who do not meet the requirements of the grant, but who may struggle to self-finance the necessary works.

## Conclusion

This report explores a range of published analyses and meta-studies of evidence around that costs and benefits of providing accessible housing for disabled people. It reviews how that evidence can be specifically applied to the needs of people who are wheelchair users. This has been done through considering three main groups – households with children who use wheelchairs; working age wheelchair users; and households made up of people who are retired and in later life. Specific areas of potential benefit have been highlighted, and a detailed model has been developed to estimate the additional costs of providing new housing to wheelchair standards (defined in government regulations). Similarly detailed and documented evidence is used to estimate possible levels of benefits, including savings to public expenditure and direct benefits to individuals and households of living in wheelchair user homes. Additional commentary is provided around risks and uncertainties in the model. In addition, 17 interviews with people who use wheelchairs have informed how the model has been developed, and to provide valuable insights into the lived experience of living in suitable housing.

We conclude that the benefits to individuals and to wider society of providing newbuild wheelchair user housing exceed the costs required to build to that standard of accessibility, although the actual level of benefits and costs will vary depending on the specific needs and life stages of households.