

Still minding the step?

A new estimation of the housing needs of wheelchair users in Scotland





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Foreword

Six years ago Horizon Housing Association and CIH Scotland published *Mind the Step*, our first report on the massive shortfall in housing for wheelchair users. This report – *Still minding the step?* – is a timely reminder that we still have a long way to go.

It's well known that there are a growing number of people who are wheelchair users. We have more people born with severe disabilities living to become adults, we have more people living longer with long term conditions, we have huge growth projected in diabetes with an associated increase in amputations. And we also know that there are too many people with complex needs – including those using a wheelchair – effectively living in hospital because suitable alternatives in the community are not available.

But too often, the approach to provision of housing for wheelchair users is “prove it”; prove there are people now who need new supply. How much evidence do we need before we focus on making sure that people with physical disabilities have the right home in the right place? Let's shift that national conversation from proving the need to finding the right solution – and that will include new provision as well as investment in adapting and upgrading existing housing. Let's recognise, and do more to enable, the central role for disabled people and their families, and for disabled people's organisations, in shaping responses and solutions.

This is an important report – not just for the housing sector. It is equally important for health and social care, where pressures and costs will increase if wheelchair users have to live in inappropriate housing. It's important because of the enormous human impact of not getting this right.

Let's have a concerted and co-ordinated effort to address the growing needs identified in this report.

Amanda Britain
CIH Scotland



“Let's have a concerted and co-ordinated effort to address the growing needs identified in this report.”



Executive summary

Wheelchair users face particular design and accessibility barriers, both in and around the home and in the wider environment. This report presents a national estimate of housing need among wheelchair users in Scotland and projects this to 2024. This includes people who use their wheelchair outdoors only, as well as those using a wheelchair indoors.

There are three solutions to unmet need, both current and projected, which should be strategically interlinked: development of new wheelchair standard homes for owner-occupiers and tenants; support for home adaptations across tenures; and efficient allocation of accessible and adaptable homes in affordable and social rented sectors.

This report explores the significance of accessible housing in facilitating national and local policies and strategic plans and assesses the extent to which current strategies address the needs of households which include a wheelchair user. There are increasing numbers of references to wheelchair user housing in policy documents on independent living, but relatively few in the context of planning for the needs of an ageing population and reshaping care. There have been significant moves in some areas to increase new supply and to improve housing choice and mobility but progress is hampered by various factors, such as: lack of information on accessible homes; inconsistent design standards; a tendency to see housing for wheelchair users as specialist housing linked to care and support; and the inflexible financing of adaptations and care/support services.

There is evidence that we are not building or adapting in sufficient numbers to keep pace with current need, and far from the level required to anticipate inevitable and projected growth.

Analysis based on the Scottish Household Survey 2015 shows that there are around **87,340** households with a wheelchair user in Scotland (3.6% of all households). Applying the **Mind the Step** calculation for both 'indoor' and 'outdoors only' wheelchair users, the estimate of the number of wheelchair user households in Scotland with unmet housing needs is **17,226** (19.1% of all wheelchair user households).

Supply is lagging behind current population profiles and is insufficient to address unmet needs or projected growth in numbers of wheelchair users. The calculation based on current health trends projects an **80% increase in the population of wheelchair users by 2024**, with an **increase in unmet needs from 17,226 to 31,007** households by that date.

The number of wheelchair user households with unmet housing needs is 17,226, that's one in five.

Overall new housing supply has, on average, only provided homes to wheelchair standard at an approximate 1.07% of all new completions (with the caveat that there is no national data on private sector completions to this standard), and 3.4% of the new affordable housing supply completions. It appears that meeting demand is largely left to the affordable homes sector. This leaves disabled people and their households with considerably less choice in the housing market than non-disabled people, while adding to the future need for, and cost of, adaptations.

There is encouraging evidence that some local authorities are taking a long term approach to planning for current unmet need in proportions which recognise the inevitable growing need and demand. However, there are clear gaps in data and in connecting related strategic plans and priorities which risk perpetuating the historic systemic failure to address the housing needs of wheelchair users.

The report makes 9 recommendations:

1. The Scottish Government should set and monitor a national guideline target for 10% of new homes to be to wheelchair user standard.
2. Local authorities should set and monitor targets for the provision of new and adapted homes to wheelchair user standard.
3. Policies and guidance should require that Local Housing Strategies plan for wheelchair standard housing as an explicit element within mainstream housing planning; with specialist housing as an additional consideration.
4. The Scottish Government should introduce a “wheelchair space standard” subsidy to its grant benchmarks.
5. Strategic commissioners and investment planners in housing, health and social care, including Integrated Joint Boards, should apply the three tier approach to meeting needs.
6. The Scottish Government should consider a national funding support mechanism to enable wheelchair user households, including current home owners, to buy suitable or adaptable homes.
7. The Scottish Government should review guidance to local authorities on use of the Scheme of Assistance and extend the Housing Options approach.
8. Clearer and nationally applied definitions should be developed for different levels of accessible homes, related to review and development of consistent and up-to-date design standards which apply across all tenures.
9. The Scottish Government, local authorities, health bodies and housing providers should invest in addressing the data gaps.

1. Introduction

Mind the Step: an estimation of the housing needs of wheelchair users in Scotland (Watson et al), published by Horizon Housing Association in 2012, remains the only reference source in Scotland to apply a statistical analytical approach to calculate housing needs of wheelchair users at a national level. The original research was based on national data sets from 2009/10, and in 2017 Horizon commissioned North Star Consulting & Research to update the calculations.

This new research improves the robustness of the earlier findings. The original calculations have been revisited, and triangulated. A new dimension has been added to the earlier work by developing an approach for projecting need for housing for wheelchair users in the context of an ageing population, and health trends.

This new research starts, as before, from the principle that wheelchair user housing, as far as possible, should reflect the aims of inclusive design. This is a broad spectrum approach to buildings, environments and products that are usable and effective for everyone, and for as wide a range of people as possible, recognising aesthetic as well as functional appeal.

While the policy, economic and legislative context has continued to develop the particular design and accessibility barriers faced by wheelchair users mean these require specific attention. These barriers are also faced by other groups who benefit from design features in fully wheelchair accessible homes, defined for the purposes of the research by Housing for Varying Needs – a design guide: design for dwellings specifically for wheelchair users (Scottish Homes, 1998).

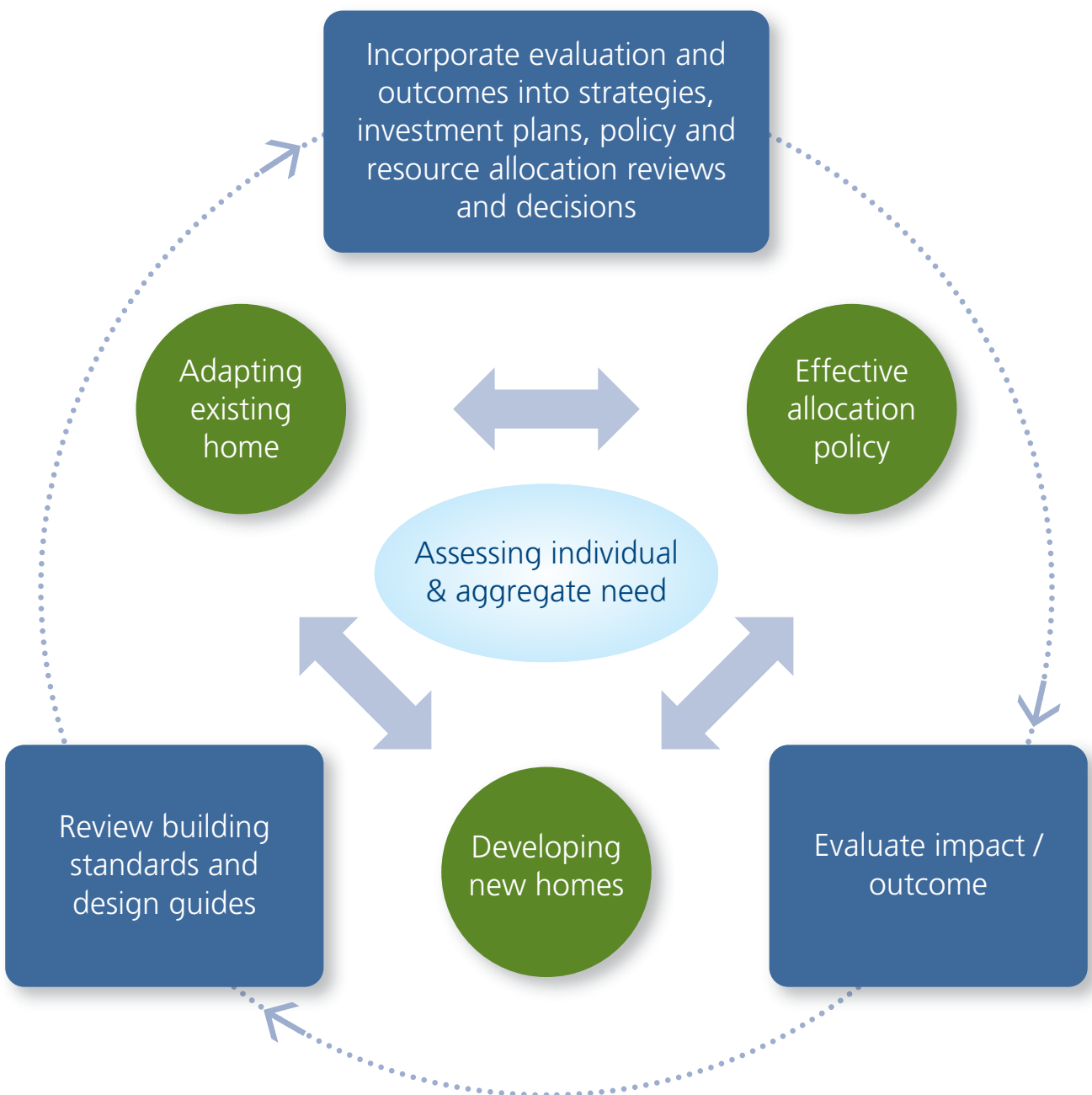
Policy interest in the provision of housing for wheelchair users continues to ebb and flow. It is encouraging to note that **Mind the Step 2012** has been used by several local authorities, influencing their approach and calculation of local need. Yet, despite the numbers of people using wheelchairs, and the reasonable prediction that this number is going to grow, policy attention has been relatively weak and often unconnected.

1.1 Diversity of Circumstances, Diversity of Solutions

People who use wheelchairs are highly diverse in respect of their life stages, social and household circumstances and expectations. Families with disabled children will have different needs to young adults seeking independent living, and in turn to older people moving between walking frames and wheelchairs and disabled veterans returning home with an acquired and life changing injury. Many will need or prefer to have adaptations carried out to their existing home, while others will look to move to a different property – in some case to set up a new household. For some a planned approach will be possible, while others may need an immediate response.

Location, design, support networks and care or support arrangements are often as important as bricks and mortar. This diversity poses a challenge in terms of traditional approaches to planning and strategy development such as that called for in Housing Needs and Demand Assessments which underpin local strategic housing planning. This research takes the approach that there should be strong linkages between the three key solutions: development of new homes designed to wheelchair user standards, across all tenures; support for home adaptations across all tenures; and effective allocation, within social housing, of existing accessible and adaptable homes.

Figure 1: Three-way approach to tackling unmet need for wheelchair user housing



1.2 The Research Project

In seeking to update the study '**Mind the Step: An Estimation of Housing Need among Wheelchair Users in Scotland**' 2012, the 2017 research sought to:

- Update the legislative, strategic and policy context in Scotland for developing accessible and adaptable homes.
- Explore the significance of accessible housing in facilitating national and local policies and strategic plans.
- Add new data on numbers and proportions of new build to wheelchair user standard across tenures over the last 10 years.
- Review and update the estimate of housing needs among wheelchair users in Scotland.
- Produce a national estimate for Scotland of the unmet need for wheelchair accessible homes.
- Illustrate an approach, based on population projections and other indicators, for assessing, at national and locality levels, the estimated future need for wheelchair accessible homes.





2. The Policy Context

This section draws out key elements of the current policy context, and makes comment on recent research in relation to the housing needs of wheelchair users.

2.1 Independent Living, Citizenship and Human Rights

The Scottish Government has used the framework of the United Nations Convention of Human Rights of disabled people to develop a delivery plan for:

“disabled people to have the same equality and human rights as non-disabled people. This means disabled people having the same freedom, dignity, choice and control over their lives as everyone else, with rights to practical assistance and support at home, at work and in the wider community.”

A Fairer Scotland for Disabled People (Scottish Government, 2016) acknowledges that this statement is a long way from the reality for many disabled people. It recognises the importance of accessible housing as a cornerstone to independent living and citizenship and commits to actions which aim to increase new wheelchair housing supply across all tenures: these include ensuring local authorities set realistic targets for supply of wheelchair user housing, and improving the experience of disabled people seeking adaptations.

The Equality and Human Rights Commission is at the time of this study undertaking its formal **Inquiry into housing for disabled people** using its legal powers under the Equality Act 2006. Taking a UK wide scope, the inquiry will report on whether the availability of accessible and adaptable housing, and the support services around it, is fulfilling disabled people’s rights to live independently.

The need for wheelchair user homes goes beyond housing. Independent living, equality, personalisation of services, and national health and wellbeing outcomes are themes whose resonance has grown since the original Mind the Step study was published in 2012. There are cross cutting policy connections with lack of suitably designed or adapted homes impacting on inclusive education, employability, social networks or isolation, planning and place-making for inclusive neighbourhoods and environments. Consequential cause and effect is only sometimes, and loosely, recognised in policy responses.

2.2 Austerity, Affordability and Prevention

Principles of social justice and inclusion have underpinned the policy support for independent living, but reductions in public spending have introduced a new dimension. Policy in Practice (August 2017) in its national assessment of the **cumulative impact of welfare reforms** by the UK government finds that households which include disabled people are more heavily impacted by welfare reforms than other households. While the Scottish Government has sought to mitigate these, the impact risks further limiting the availability, accessibility or affordability of suitable housing for those in need of most highly adapted homes.

The financial benefit of investment in specialist housing for disabled and older people is assessed at £3.5 billion per annum for the UK (Frontier Economics report for the Homes and Communities Agency, 2010). These reflect savings to other parts of the public sector, notably health and social care. There are less quantifiable emotional, psychological, financial and social impacts in terms of costs and benefits of physically suitable housing, to the individual, their family and informal carers.

Similarly numerous studies on adaptations to property demonstrate the social value and investment benefits of use of equipment and adaptations in place of other forms of care (Scottish Government, 2015, *The Benefits of Equipment and Adaptations*); Powell et al, 2017, *The role of home adaptations in improving later life*). **Better outcomes, lower costs** (Heywood & Turner, 2007) reviews the evidence on the implications of investment in adaptations for health and social care budgets and concludes that in the context of demographic change, any policy with the power to reduce costs and enable resources to serve more people must be of interest to Government. The analysis finds that as an alternative to residential care, or to prevent hip fractures or speed hospital discharge, or where they relieve the burden of carers or improve the mental health of a whole household, adaptations will save money, sometimes on a massive scale.

2.3 Demographic Change and Accessible Housing

It is a significant development since 2012 that the strategy for **A Fairer Scotland for Disabled People** identifies and recognises that achieving or maintaining independent living for disabled people entails availability of suitable housing and that a proportion of this needs to be of wheelchair user standard. The challenge is that strategies, at national and local levels, do not assess the cumulative impact on need for housing for wheelchair users arising from demographic change in relation to age, longer life expectancy of those with disabilities, and the increasing prevalence in Scotland of people with deteriorating neurological conditions, diabetes and obesity.

Between 2014 and 2039, there is forecast to be an 85% increase in the number of people in Scotland over 75 years of age (**Scotland's Population 2015 Infographic Report**). This equates to an extra 370,000 people in Scotland, many of whom will have health and long term conditions, or simple frailty, giving rise to a growth in wheelchair use inside and outside the home. The demographic change is also leading to an increase in the use of mobility devices, with increasing prevalence of the use of wheeled walking frames or two sticks, requiring similar space requirements to wheelchair users (O'Hare et al, 2013; Gell et al, 2013; Dept of Transport, 2005).

In this context, the Scottish Government's review of **Age, Home & Community**: a strategy for older people's housing (2017) recognises the role of adaptations and the need for innovation in design and technology. While there is commitment to ensuring needs of older and disabled people are better reflected within planning and housing investment processes, no explicit commitments are made and there is no consolidation of national data or targets against which progress can be monitored.

2.4 Health and Social Care Integration

Health and Social Care Integration, emerging from the Public Bodies (Joint Working) (Scotland) Act 2014 is driven by agreed national health and wellbeing outcomes which seek to push care and the associated investment away from institutional settings and into community provision. Adaptations are included as a delegated function to new joint health and social care bodies, but in practice there is little evidence that the policy intent is flowing through to structural or funding changes which recognise the crucial role of adaptations in prevention and enablement.

Housing Contribution Statements (Scottish Government Housing Advice Note, Sept. 2015), allied to Health & Social Care Partnership Strategic Plans, are in the early stages of development as meaningful planning documents. The estimation of housing needs of wheelchair users in this report does not take into account the needs of those inappropriately accommodated in institutional care, including hospital.

2.5 Accessible Homes – Supply and Design

New Building

The Building Regulations (2004, and as amended in 2017) introduced a number of accessibility requirements for all new homes, including level access and space on a ground floor to convert a WC into a shower area. Prior to this, the design of Scotland's homes routinely had steps to the front door and tended towards maximising the number of rooms, often at the expense of space so reducing both accessibility and adaptability.

Given the limited accessibility of the majority of existing homes and the consequent lack of choice for many disabled people, new supply of accessible homes in all tenures is a necessary element in meeting the housing needs of disabled people.

The Independent Living in Scotland report from its Disabled People's Housing Summit, **Our place, Our space** (2017) reports the housing experiences of disabled people in practice against the backdrop of stated policy objectives, and sets out its agenda for housing, specifically calling for 10% of all new homes to be built to wheelchair housing space standards, distinguishing this from the importance of all new housing being to inclusive design standards, as set out in **Lifetime Homes** (Habinteg, 2010) or **Housing for Varying Needs** (1998).

The Scottish Government has committed to investing £3bn to build 50,000 affordable homes over the next 5 years. Yet there is no explicit commitment in its **Joint Housing Delivery Plan** (2015) to ensure that a proportion of the new homes are provided with the design and space standards to meet the needs of wheelchair users into the future. Grant levels for social housing received a welcome increase in 2016, and supply is starting to respond, but while subsidy benchmarks recognise the premiums needed to support housing provision in rural areas and "greener" homes, recognition of the additional costs of wheelchair user housing remains to be negotiated on a site by site basis.

Design standards

Shifts in public attitudes towards disability saw a change in guidance on design in the late 1990s. New building regulations significantly increased the requirements for ensuring access for disabled people within updated **Building Regulations (Part M) (2004)**.

Housing for Varying Needs (1998) was based on principles of inclusion and wider definitions of accessibility: it introduced a requirement that all new public housing should meet 'barrier-free' standards. For wheelchair users, however, the assumption was that the housing would need to include integral support. Higher specification guidance was provided in a second volume focusing on housing with integral support, all of which should be suitable for wheelchair users. The result is that incorporation of housing to wheelchair user standard by mainstream housing providers is often seen as "special", satisfying an accepted design standard which is not fully functional for many of today's wheelchair users. This is clearly demonstrated in **Bridging the gap**, a critique of Housing for Varying Needs Standards in response to the growing demographic of young wheelchair users in Scotland (Colley, 2016), unpublished paper.

Suggestions for streamlining the different standards have been mooted (**Age, Home & Community 2011**) and **Independent Living in Scotland (2016)** has called for design standards to be reviewed to reflect changed and changing requirements and expectations. The need for review arises from advances in equipment size and design, technology, diversity of households and lifestyles.

A cross tenure approach to accessibility standards which encourages provision to wheelchair user space and design standards could support a better understanding in the mainstream of the design and space features needed for a functionally adaptable home for a wheelchair user. In support of this, Scottish Government commissioned research (Anderson, Bell, Christie, 2017) aimed at increasing the supply of tailor-made wheelchair accessible housing to the right people and in the right location by examining scope for reconfiguration of developers' standard house types.

2.6 Adapting Existing Homes

Scottish Government policy is to support independent living and to enable people to stay in their homes for as long as they want and are able to do so. Recognising the challenges for people seeking to adapt their homes, **Adapting for Change** (Scottish Government, 2012) identified principles for fundamental change in delivery of adaptation services: self direction, person-centredness, prevention and enablement were core to these.

To test strategic recommendations and a framework for change, five demonstration sites were established. The **Evaluation of Adapting for Change**, (Scottish Government, 2017) concluded that it remains very difficult to deliver the transformative change required, with sustained partnership and cross sectoral working remaining a significant challenge. At the same time, the power and potential of such an approach to bring about positive change is the single greatest achievement observed in the test areas.

The experience of disabled people, including wheelchair users, seeking adaptations continues to vary widely, with tenure, location and local funding conditions as significant as need in determining outcomes.

2.7 Allocation of Adapted Housing

Policy and practice in relation to letting adapted and accessible social rented housing represents an important element in satisfactorily resolving the housing needs of disabled people. However, relatively little is known about how the challenges of matching the specific needs of households to the design adaptations of vacant properties are resolved in practice; or about the experiences of applicants waiting for housing to meet particular needs relating to locomotive, sensory or cognitive impairments.

Matching Up? A pilot study of effectiveness in letting adapted social housing (Anderson et al 2017), tested a research method for evaluating the effectiveness of lettings procedures for adapted housing, utilising a co-production approach involving housing providers and disabled researchers and applicants. The pilot concluded that disabled people remain disempowered in the housing system and face a shortage of fully accessible properties across tenures and a lack of choice in relation to the location of their homes. The limited evidence on lettings practice indicated a need for an integrated approach to meeting needs which consider the physical design of housing, use of space, geographical location, and links to public transport and amenities.

Solutions are not easy to find. There has long been an interest in developing registers of adapted properties; while others have sought to focus on the characteristics of properties that would be suitable for adaptation and use by, amongst others, wheelchair users. Glasgow Centre for Inclusive Living has led, with Scottish Government support, the development of a national register of properties suitable for disabled people and available for let or purchase, Homes2Fit (www.gcil.org.uk/housing/home2fit). This resource is yet to be fully exploited and is competing against multiple other systems for letting rented homes.



Policy and practice in relation to letting adapted and accessible social rented housing represents an important element...



3. Strategic Planning

Local authorities are required by law to prepare a local housing strategy supported by a Housing Need and Demand Assessment. Local Housing Strategies are at the heart of the arrangements for housing and planning through its links with development plans and its strategic role in directing investment in housing and housing related services locally. It is for local authorities through their Local Housing Strategy and Strategic Housing Investment Plans to set out local housing needs and the priorities for housing investment, including how much specialist housing and housing for particular needs is required, and where this should be delivered (Scottish Government Local Housing Strategy guidance, 2014).

We have reviewed the Local Housing Strategy, Housing Need and Demand Assessment and Strategic Housing Investment Plans currently published on the websites of each of the 32 Scottish local authorities.

3.1 Wheelchair Housing in Local Policies

3.1.1 Local Housing Strategies (LHS)

Of the 32 local authorities, 24 (75%) specifically mention wheelchair housing in their Local Housing Strategy. The other 8 local authorities cover wheelchair housing policy through ‘**varying needs housing**’ or ‘**specialist provision**’.

3.1.2 Housing Need and Demand Assessment (HNDA)

Of the 32 local authorities, 22 (69%) specifically mention wheelchair housing in their Housing Need and Demand Assessment. The other 10 local authorities cover wheelchair housing within varying needs housing or specialist provision.

Some local authorities have set a particular wheelchair or specialist provision target. The most common target set for specialist provision is 10% of all affordable new builds. A number of local authorities have set a specific target for wheelchair user housing within the 5 year period of the HNDA and LHS. Those with specific wheelchair housing targets include:

- **Glasgow**¹ has set a target of 10% wheelchair housing for all new build houses to ensure the increase of accessible housing across the city.
- **East Dunbartonshire**² states that 10% of new affordable housing will be suitable for wheelchair users.

¹ <https://www.clydeplan-sdpa.gov.uk/docman/current-plan-july-2017-background-reports/73-background-report-2-glasgow-and-the-clyde-valley-housing-need-and-demand-assessment-may-2015/file>

² <https://www.eastdunbarton.gov.uk/residents/housing/local-housing-strategy-2017-2022>

- **North Lanarkshire**³ sets a minimum target of 5% of all new build social rented housing to be built to wheelchair standard. Within the Council's own new build programme higher targets have been set with a minimum target of 10% of all Council new build homes to be built to wheelchair standard.
- **Eilean Siar**⁴ have committed to 5% of affordable new build properties being fully accessible to wheelchair users on suitable sites.
- **North Ayrshire**⁵ Housing Need and Demand Assessment indicates that 2% of all new homes should be wheelchair user housing. However, long term demographic and health changes suggest increased demand for this housing in future. To ensure need is met, a target of 4% has been set for partners.

3.2 Existing Supply

Housing Statistics for Scotland – Housing for Older People and Those with Disabilities⁶ shows that as at 31st March 2017 there were 1,727 local authority housing units for older people which are adapted for wheelchair use and 1,854 local authority housing units for people with physical disabilities which are adapted for wheelchair use. Overall there are 3,581 units adapted for wheelchair use across all local authority housing stock in Scotland. The figures for RSLs could not be provided by the Scottish Housing Regulator.

Data provided by the Scottish Government shows that between 2008/09 and 2016/17 a total of 1,427 affordable housing units have been built to wheelchair standards. This represents 2.6% of the affordable housing supply completions in the period, or 3.4% of affordable housing supply new build completions. Table 3.1 shows how the number of completed units specifically designed for wheelchair users has fluctuated over recent years.

During 2015/16 there were a total of 6,518 completions through the Affordable Housing Supply Programme⁷. From Table 3.1 we know that during 2015/16 there were a total of 124 units completed through the affordable housing supply programme which were purpose built for wheelchair users. This represents 1.9% of total new supply.

When we compare the Affordable Housing Supply Completions between 2008/09 and 2015/16 we can see that a total of 1,427 homes were purpose built for wheelchair users: the highest proportion of units purpose built for wheelchair users were observed during 2011/12 (3.4%) and 2010/11 (3.2%) while the lowest were during 2009/10 (1.8%) and 2015/16 (1.9%).

³ <http://www.northlanarkshire.gov.uk/CHttpHandler.ashx?id=18717&p=0>

⁴ <http://www.cne-siar.gov.uk/housing/documents/Outer%20Hebrides%20Local%20Housing%20Strategy%202011-2016.pdf>

⁵ <https://www.north-ayrshire.gov.uk/Documents/PropertyServices/HousingBuilding/housing-need-demand-rpt.pdf>

⁶ Housing Statistics for Scotland – Housing for older people and those with disabilities

⁷ Affordable Housing Supply Programme: new affordable housing completions: 2000-01 to 2016-17

It is important to note that during this period between 13% and 32% of new supply comes from rehabilitation or off the shelf purchase of units, not from new build supply. When we consider the proportion of new build units which have been purpose built for wheelchair users we find that this accounts for between 4% and 2.5% of new supply in the affordable housing sector giving an average of 3.4% over the period.

Year	Units Purpose Built for Wheelchair Users	AHSP Completions	Purpose Built Wheelchair User Units as % of AHSP Completions	AHSP New Build Completions	Purpose Built Wheelchair User Units as % of AHSP New Build Completions
2008/09	174	6,221	2.8%	4,737	3.7%
2009/10	142	8,092	1.8%	5,689	2.5%
2010/11	230	7,231	3.2%	5,896	3.9%
2011/12	235	6,882	3.4%	6,009	3.9%
2012/13	150	6,009	2.5%	4,876	3.1%
2013/14	154	7,012	2.2%	4,956	3.1%
2014/15	218	7,069	3.1%	5,397	4.0%
2015/16	124	6,518	1.9%	4,418	2.8%
Total	1,427	55,034	2.6%	41,978	3.4%

Source: Housing Statistics for Scotland – Housing for older people and those with disabilities Affordable Housing Supply Programme: new affordable housing completions: 2000-01 to 2016-17

Table 3.2 shows the total number of new homes completed between 2008/09 and 2015/16, and the proportion of these supplied by the private sector, on average at double the rate of the affordable housing sector. The Scottish Government does not collect or provide data on property types or design standards from private sector developers. Homes for Scotland, the representative body for the Scottish home building industry, similarly does not hold any data sources on the types of homes built. While it is likely that there is some small provision of new homes in the private sector to wheelchair user standards, in the absence of any national data, the percentage of total completions shown below is based on published data. Albeit this may be a slight underestimate, when we consider the proportion of new build units known to have been purpose built for wheelchair users, we find that this accounts for between 0.74% and 1.49% of overall new supply giving an average of 1.07% over the period.

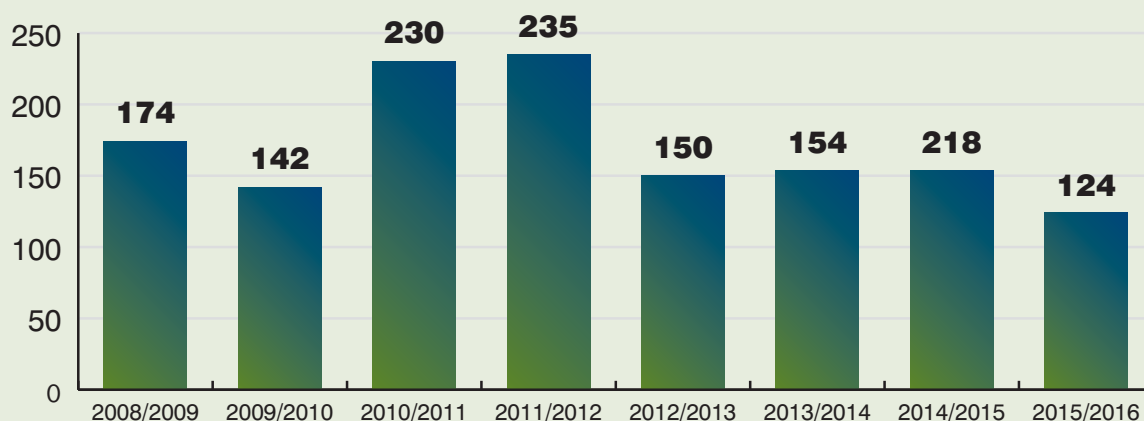
Table 3.2 Total Housing Supply Completions 2008/09 – 2015/16				
Year	Units Purpose Built for Wheelchair Users*	Total new build completions	Private sector new build completions	Purpose Built Wheelchair User Units as % of Total New Build Completions*
2008/09	174	21,022	16,109	0.83%
2009/10	142	17,122	11,133	0.83%
2010/11	230	16,427	10,702	1.40%
2011/12	235	15,999	10,109	1.47%
2012/13	150	14,096	9,862	1.06%
2013/14	154	14,971	10,920	1.03%
2014/15	218	16,577	12,356	1.32%
2015/16	124	16,780	13,322	0.74%
Total	1,427	132,994	94,513	1.07%

Source: Housing Statistics for Scotland – Housing for older people and those with disabilities. Housing Statistics for Scotland – New house building: all sector starts and completions. Private sector start and completions: 2000-01 to 2016-17.

Note: * Based on Scottish Government available data. No data is available on private sector property type completions from Scottish Government or Homes for Scotland.

Figure 2 Wheelchair Completions through AHP 2008/09 to 2015/16

Wheelchair Units Completed through Affordable Housing programme





4. Estimate of Housing Need in Scotland

4.1 Housing Need

A key aim of this research was to update the estimation of need set out in Mind the Step 2012. The starting point for the research design was to use the Census 2011 data to replicate the calculation developed by Habinteg for Mind the Step in 2012. Our full methodology is described in Appendix 1.

This methodology had limitations and therefore we also sought to triangulate this data with that from other sources. A key problem with the calculation of need for wheelchair users in Scotland is that there is no one definitive source of the number of wheelchair users and references are circular, with each citing the same sources, none of which are robust and credible assessments of need for wheelchair housing. Estimates for England are available but they also vary widely, and when applied to the Scottish data range from 22,193 to 87,340.

The Scottish Household Survey question does not properly distinguish between indoor and outdoor wheelchair use and is likely to have an element of double counting. It is therefore difficult to apply the indoor/outdoor calculation to reach the total number of wheelchair user households as used in the previous Mind the Step study. Overall it was decided that in order to use the most accurate dataset and to avoid double counting, the percentages gained through the English Housing Survey (EHS) would be applied to the number of Scottish Households.

If we apply the EHS proportions to the Scottish data we find that:

3.6% of Scottish households have someone who uses a wheelchair and this accounts for 87,340 households

This figure is considerably lower than the 119,000 found in the 2012 study but the amended methodology provides a more accurate figure which can withstand scrutiny.

4.2 Unmet Housing Need

Having discussed the various problems in assessing the number of wheelchair users in Scotland in section 4.1, here we present our estimate of unmet housing need – using the English Housing Survey as a basis but sticking as closely to the original **Mind the Step 2012** methodology as possible.

In this estimation however we have included a range, this is to allow for any variations between England and Scotland and take into account known variation in factors such as age profile and health.

4.2.1 Sources

The main source of our calculations has been the English Housing Survey 2014/15. Here respondents were asked whether anyone in the household uses a wheelchair. Table 4.1 shows the data recorded.

Table 4.1 English Housing Survey 2014 Annex Table 2.6			
Types of wheelchair users, 2014			
	Thousands of households	% of total households	Ratios
Whether anyone in the household uses a wheelchair:			
no household members use a wheelchair	21,512	95.4	
uses wheelchair all the time	210	0.9	25.8
uses wheelchair indoors only	84	0.4	10.3
uses wheelchair outdoors only	521	2.3	64.2
no answer	216	1.0	
Total – uses wheelchair all the time/indoors/outdoors	814	3.6	100
All households	22,542	100.0	
sample size	11,851		
Source: EHS 2014/2015: https://www.gov.uk/government/statistics/english-housing-survey-2014-to-2015-adaptations-and-accessibility-of-homes-report			

To ascertain the unmet need for outdoor wheelchair use and for those who use wheelchairs both indoors and outdoors, we also used EHS Annex Table 1.3 below.

Table 4.2 English Housing Survey 2014 Annex Table 1.3	
EHS Annex Table 1.3: Unsuitable accommodation, by age and tenure, 2011-12 and 2014-15	
where more than one person in the household has a long-term limiting disability that requires an adaptation (2014-2015)	
% of Households that felt accommodation was unsuitable	19%
Source: EHS 2014/2015: https://www.gov.uk/government/statistics/english-housing-survey-2014-to-2015-adaptations-and-accessibility-of-homes-report	

In addition to the English Housing Survey, we have also used the following information taken from the Scottish Household Survey. We have used this to apply assumptions on the degree of unmet housing need.

Table 4.3 Scottish Housing Survey 2015 QCC9

QCC9 from the Scottish Household Survey 2015

The Question is asked if respondent answers 'yes' to CC7:
Does your home require adaptations to make it easier for you (or anyone in your household) to go about daily activities?

Q CC9: How suitable is this accommodation for your/their needs?

	% of total
Very suitable	27.8
Fairly suitable	46.5
Not very suitable	21.7
Not at all suitable	3.9
Don't know	0.1
Total % not suitable	25.6

Source: Scottish Household Survey 2015
<http://www.gov.scot/Topics/Statistics/16002/PublicationAnnual>

4.2.2 Calculating the Unmet Housing Need

In this section we calculate the unmet housing need in Scotland using the revised methodology. The steps in determining the need for wheelchair user housing in Scotland are set out in Figure 3 (right). The calculations are provided in Table 4.4.





Figure 3 Methodology for Calculation of Unmet Need for Wheelchair Housing

Step 1: Using data from the English Housing Survey on the proportion of indoor wheelchair users, a Scottish estimate was determined.

Step 2: Applying data from the English Housing Survey, the assumption was made that Scotland has the same proportions of 'outdoor wheelchair' users. The number of 'outdoors only' wheelchair user households was calculated on this basis.

Step 2b: An estimate of wheelchair users that used their wheelchairs both indoors and outdoors was calculated.

Step 3: The level of unmet housing need among indoor wheelchair user households was determined from responses to question CC9 in the Scottish Household Survey.

Step 4: The level of unmet need among 'outdoors only' wheelchair user households was determined by using the same ratio as in the English Housing Survey.

Step 4b: Again the level of unmet need among both indoor and outdoor wheelchair user households was determined by using the same ratio as in the English Housing Survey.

Step 5: The final estimate of unmet housing need for all wheelchair user households was calculated by adding together the two unmet need figures for indoor and outdoor wheelchair users, along with those users who use their wheelchairs all the time.

Table 4.4 Calculating the Unmet Need		
Steps	Calculation	Result
1: Calculate the number of indoor user households	Assume EHS ratio. 0.4% of all Scottish households	8,970
2: Calculate the number of outdoor user households	Assume EHS ratio. 2.3% of all Scottish households	56,057
2b: Calculate the total number of wheelchair user households	Assume EHS ratio of 0.9% of all Scottish households for both users and add this to 8,970 + 56,057	87,340
3: Calculate the unmet housing need among indoor wheelchair user households	Assume 25.6% (all of those in SHS requiring adaptations and accommodation unsuitable) of 8,972	2,297
4: Calculate the unmet housing need among outdoor wheelchair user households	Assume 19% (all of those in EHS requiring adaptations and accommodation unsuitable) of 56,051	10,651
4: Calculate the unmet housing need among wheelchair user households using wheelchairs all the time	Assume 19% (all of those in EHS requiring adaptations and accommodation unsuitable) of 22,519	4,278
5: Calculate all unmet need among wheelchair user households	Add 2,297 + 10,651 + 4,278	17,226

From our calculations, the unmet housing need for wheelchair user households in Scotland is around **17,200**. The calculation from the unadjusted methodology adopted in 2012 was an unmet need of **17,004**.

Around
17,200
wheelchair user
households have
unmet housing
needs.

4.2.3 Ranges of Estimates

Given the degree of variance in estimates of the number of wheelchair users in Scotland, and also given that we have relied on English Housing Survey assumptions, we felt it was important to cross check our estimates with other indicators. Table 4.5 provides this comparison:

Table 4.5 Comparison of Other Indicators to confirm Use of English Housing Survey Data			
	Scotland	England	Sources:
% of Households with a limiting condition requiring adaptations to their home	10%	9%	Scottish Household Survey 2014 and English Housing Survey 2014/2015
% of population that is over 65 years	14.4%	16.4%	Census 2011
Long-term health problem or disability-respondents who report day to day activities limited a lot	9.6	8.3	Census 2011
Long-term health problem or disability-respondents who report day to day activities limited a little	10.1	9.3	Census 2011

From this we can see that the proportions in Scotland are roughly in line with England. However there is some differential. For example, the gap between Scotland and England in terms of the proportion of the population over the age of 65 is -2% while the gap between the two countries and those with a long-term health problem or disability is +1.3%. For this reason we have set out 3 different ranges of unmet need:

Figure 4 Ranges of Unmet Need

High unmet need: Assuming unmet need is 1.3% higher, the total households in Scotland with wheelchair users is 88,683 with an unmet need of 17,450.

Baseline unmet need: Assuming the rates in Steps 1 to 5 above the total households in Scotland with wheelchair users is 87,340 with an unmet need of 17,226.

Low unmet need: Assuming unmet need is 2% lower, the total households in Scotland with wheelchair users is 85,794 with an unmet need of 16,881.

4.3 Future Need

It is extremely difficult to provide an estimate of the future need for wheelchair adapted housing, particularly given how difficult it is to provide an estimate of current need. Many factors will affect future need including, but not exclusively:

- The prevalence of illnesses such as strokes, diabetes, cancers, Alzheimers and arthritis, all of which are associated with higher rates of wheelchair use
- An aging population which is also living for longer
- Improvements and innovations in healthcare
- The supply of adapted accommodation

Table 4.6 provides a crude estimate of future unmet need based on the average annual growth rates of wheelchair users taken from the English Housing Survey:

	2014/15	2019/20	2024/25
Estimated Number of Households with Wheelchair Users in Scotland	87,340	114,150	149,189
Estimated Unmet Household Need	17,226	22,514	29,424

Source: 2007/2008 EHS data was used to calculate an average annual growth rate. This was then applied going forward to 2024/25.

For Table 4.6, using a scenario which assumes the same growth rates as for England it is estimated that the future number of households in Scotland with a wheelchair user may be over 149,000 by 2024/25 equating to an unmet need of almost 30,000 households.

However, it is very unlikely that the rate of growth in wheelchair users will grow at a constant rate and will instead be affected by the health of the population. Recent research carried out by the Personal Social Services Research Unit (PSSRU) has looked at the Projected Demand for Supported Housing in Great Britain and provides different growth scenarios based on a model developed by Jagger et al, 2009.¹⁴

Here two different scenarios are used:

- **Scenario 1:** improving population health where there is a decline in risk factors, particularly smoking and obesity, and in the prevalence of disabling diseases under this scenario there would **be an increase in the disabled population of 0.62% over a ten year period.**
- **Scenario 2:** where current health trends continue – continuation of current trends in chronic conditions associated with disability, which results in increasing disability prevalence rates among older people. Under this scenario there would **be an increase in the disabled population of 0.8% over a ten year period.**

¹⁴<http://www.lse.ac.uk>

Table 4.7 provides an estimate of the unmet need based on these scenarios.

Table 4.7 Future Estimates of Unmet Household Need 2014/15 to 2024/25 Using Different Health Scenarios			
	2014/15	2019/20	2024/25
Estimated Number of Wheelchair User Households			
Baseline	87,340	114,150	149,189
Scenario 1: Improved Health Trends	87,340	114,415	141,491
Scenario 2: Current Health Trends	87,340	122,276	157,212
Estimated Unmet Household Need			
Baseline	17,226	22,514	29,424
Scenario 1: Improved Health Trends	17,226	22,566	27,906
Scenario 2: Current Health Trends	17,226	24,116	31,007

Source: Using Scenarios calculated by Jagger et al 2009. Baseline has been calculated using EHS trends information.

4.4 The needs of other mobility device users

While estimating the housing needs of wheelchair users is the focus of this report, it is worth considering the equivalent design and space requirements of those disabled and older people who use certain types of mobility equipment. The manoeuvring space required by a person using two sticks, or a wheeled walking aid with three or four wheels, can occupy a greater width than someone using a wheelchair (Inclusive Mobility, Dept. of Transport 2005).

The use of walking frames, particularly by people aged over 75, is set to increase (O'Hare et al, 2013). Data on use of specific equipment in the UK is not readily available, but trends can be drawn from data available from US studies on mobility device use in older adults. These suggest (Gell et al, 2015):

- 24% of people aged over 65 years use a mobility device.
- 9% use more than one device.
- There are twice as many users of walking frames as wheelchairs.
- There has been a 50% increase in the use of walking frames since 2004, with strong links to rates of obesity.

This trend is therefore an additional factor to consider in estimating the need for homes to a wheelchair design standard.



5. Conclusions and Recommendations

This report demonstrates that the majority of wheelchair users have a suitable home, and that there are positive trends in the strategic housing planning for homes for wheelchair users.

There are however 17,226 households which include a wheelchair user with unmet housing needs. This compares to 17,004 reported in 2012, and represents a higher proportion of overall wheelchair users (19.7% compared to 14.1% in 2012). The proportion of unmet need amongst indoor wheelchair users has remained the same (25.6% compared to 25.4%).

A projection of numbers of wheelchair users shows an 80% increase in the number of wheelchair users in Scotland by 2024, based on current health trends. In this context, and on current housing trends, the unmet need is calculated as rising to over 31,000 wheelchair user households.

These figures represent major impacts for the dignity and independent living of individual households, with substantial hidden costs and real cost consequences for non-housing budgets. Yet the numbers are not so great that they represent an insurmountable problem – rather perhaps it is the diversity of circumstances and factors affecting locality requirements that makes it more difficult to devise appropriate and effective strategies at national or local levels.

There is evidence that we are not building or adapting in sufficient numbers to keep pace with current need, let alone to anticipate inevitable and projected growth. The analysis shows that:

- 4.1% of people with a long term health condition use a wheelchair indoors and 3.6% of households contain a wheelchair user.
- There is a current backlog of unmet housing need, representing 19.1% of wheelchair user households, 0.7% of all households.
- Projections to 2024 indicate there will be a wheelchair user living in around 6.5% of households.

The scope of this analysis has not extended to include the far greater number of disabled people who use mobility devices. Other research since 2004 shows the growing use of wheeled walkers, estimated at twice as many users as wheelchairs. The width and manoeuvring space of a person using wheeled mobility equipment, or walking with two sticks, can occupy a greater width than someone using a wheelchair. Growth in use of these mobility devices adds a further need and demand for housing designed to wheelchair space standards.

Unmet housing need requires to be addressed with the three tier approach of new supply, adaptations and allocations. Yet, with overall new housing supply only

providing homes to wheelchair standard at a rate of around 1.07%, affordable housing supply completions to wheelchair standard at 2.6%, and affordable new homes at a rate of 3.4%, supply is lagging behind current population profiles and is insufficient to address unmet or projected needs.

It remains the case that meeting demand is largely left to the affordable homes sector with little evidence of provision by private developers. This leaves disabled people and their households with considerably less choice in the housing market than non-disabled people, while adding to the future need for and cost of adaptations in private sector property to a greater extent than the social rented sector.

There is encouraging evidence that Mind the Step 2012 was useful to a number of local authorities which considered the methodology in the local context. The review of strategies also evidenced that some local authorities are taking a long term approach to planning for current unmet need in proportions which recognise the inevitable growing need and demand. However, there are clear gaps in data, in strategic planning and in connections between Local Housing Strategies, Housing Needs and Demand Assessments and translation into priorities in Strategic Housing Investment Plans.

Our review of all 32 local housing strategies showed that a quarter of local authorities do not specifically plan for housing to wheelchair standard. This, and the review of Housing Needs and Demands Assessments, indicated that few integrate planning for new supply, adaptation of existing homes and allocation of vacancies in rented housing into whole system thinking about local housing strategy. The level to which the housing needs of households with wheelchair users is subsumed into “specialist provision” but not specifically identified is a reminder of the extent to which the housing sector is still operating from a medical model of disability.

An emphasis on numbers alone is not enough. There are continuing issues for the housing sector in the use of traditional care group classifications, reflecting service and organisational divisions in health and social care, which create difficulties in considering cross cutting issues affecting housing options for wheelchair user households. There are also challenges in arriving at a national assessment: there is no standard definition of what is meant by accessible housing, and the term “particular needs” is used as a catch all, which obscures the degree to which design and space to wheelchair user standard has been provided and is required. Greater supply in all tenures of homes to inclusive design standards, via improved Housing for Varying Needs or Lifetime Homes standards, is necessary, but too often this is conflated with housing which is suitable for wheelchair users.

Limitations in data, in cross referencing of data and in projections at local level are such that it is challenging for local authorities to develop data based strategies. The estimations and projections in this research would support an approach which seeks to define general supply and investment requirements reflecting on local factors such as prevailing property types, general health (as opposed to specific client group needs), and income and deprivation. As some local authorities are demonstrating, design and provision to wheelchair standard would then be an element of the strategy, linked to local factors; the additional need for specialist provision, integrated with planning for care and support, would then also be identified.

Recommendations

- 1 The Scottish Government should set and monitor a national guideline target for 10% of new homes to be to wheelchair user standard.** The Scottish Government should use this report to inform its commitment in A Fairer Scotland for Disabled People to ensuring that local authorities set realistic cross tenure targets for homes to wheelchair user standard, so improving its accountability for delivering this.
 - 2 Local authorities should set and monitor targets for the provision of new and adapted homes to wheelchair user standard.** Consideration should be given to the *Still minding the step?* methodology, and to using this for projecting future needs which reflect local factors such as property types, general health, income and deprivation levels as well as demography.
 - 3 Policies and guidance should require that Local Housing Strategies plan for wheelchair standard housing as an explicit element within mainstream housing planning; with specialist housing as an additional consideration.** Most wheelchair users need a suitably designed or adapted home, where the important element is space and design for adaptability beyond “barrier free”; specialist provision implies specialist design, fittings and equipment as standard.
 - 4. The Scottish Government should introduce a “wheelchair space standard” subsidy to its grant benchmarks,** akin to the “greener” subsidy, recognising the additional costs of these space standards in order to encourage provision to address the growing shortfall.
 - 5 Strategic commissioners and investment planners in housing, health and social care, including Integrated Joint Boards, should apply the three tier approach to meeting needs.** This means looking at the balance required between new homes and adaptations in all tenures, and effective allocations systems, and monitoring progress against inter-related targets and outcomes.
 - 6 The Scottish Government should consider a national funding support mechanism to enable households, including current home owners, to buy suitable or adaptable homes.** This should recognise the additional cost of higher space requirements, and operate in tandem with open discussions with the private sector about requiring and supporting it to respond to need and demand. It should also ensure access to the advice and assistance needed to deliver it.
 - 7 The Scottish Government should review guidance to local authorities on use of the Scheme of Assistance and extend the Housing Options approach** to support disabled people and their households to move to and adapt a more suitable home.
 - 8 Clearer and nationally applied definitions should be developed for different levels of accessible homes, related to review and development of consistent design standards.** These should be developed for and promoted across all tenures, and encompass levels of accessibility up to and including full wheelchair standard.
 - 9 The Scottish Government, local authorities, health bodies and housing providers should invest in addressing the data gaps** such that it is not necessary to use English proxies in order to calculate need in Scotland, and to improve data in relation to private sector completions to wheelchair user standard.
-

Afterword

“This is an excellent piece of work and we welcome it wholeheartedly. At the same time it is disheartening.

How often are we as disabled people going to have to be counted, measured, assessed? It’s never ending. How many times do we have to justify the need? How many times do we have to do analysis to prove what we know to be the case before some non-disabled person in power decides to do something about it?

We know from the work and countless case studies of GCiL, Home2Fit, Housing Options Scotland, Inclusion Scotland, Independent Living in Scotland and Capability Scotland, among others, that the need and demand is there.

As the Equality and Human Rights Commission prepares to launch the results of its inquiry into the impact of accessible homes on disabled people’s right to independent living, we welcome the recommendation for a 10% target of new homes to wheelchair user standard. It’s time to do something about the societal failure – at all levels: people, public and private sectors – to address this long standing need.”

Grant Carson

Director of Housing and Employment Services
Glasgow Centre for Inclusive Living

6 References

- Anderson, I, Theakstone, D et al. 2017. Matching Up? A pilot study of effectiveness in letting adapted social housing. Horizon Housing Association.
- Anderson, Bell, Christie, 2017. Research into the reconfiguration of standard developer house types for wheelchair users. Scottish Government.
- Building (Scotland) Regulations. 2004.
<http://www.legislation.gov.uk/ssi/2004/406/made>
- Colley, G. 2016. Bridging the gap: a critique of Housing for Varying Needs. Unpublished. Available from Horizon Housing Association.
- Department of Transport. 2005. Inclusive Mobility. Making transport accessible for passengers and pedestrians.
<https://www.gov.uk/government/publications/inclusive-mobility>
- Equality and Human Rights Commission. Dec 2016. Announcement of Inquiry into Housing for Disabled People.
<https://www.equalityhumanrights.com/en/inquiries-and-investigations/inquiry-housing-disabled-people>
- Frontier Economics Ltd, Sept. 2010. Financial benefits of investment in specialist housing for vulnerable and older people. A report for the Homes & Communities Agency.
- Gell, NM et al. 2015. Mobility device use among older adults and incidence of falling and worrying about falling. Findings from the 2011 – 2013 National Health and Aging Trends Study. *Journal of the American Geriatrics Society*. Vol.63:5
- Habinteg. 2010. The Lifetime Homes Design Guide.
<http://www.lifetimehomes.org.uk/pages/reviced-design-criteria.html>
- Heywood, F. and Turner, L. 2007. Better outcomes, lower costs: Implications for health and social care budgets of investment in housing adaptations, improvements and equipment. Leeds: HMSO.
- Independent Living in Scotland. 2017. We say: Our place, our space: The evidence on disabled people's housing issues from Scotland's Disabled People's Summit. Inclusion Scotland.
- Jagger et al. 2009. Calibrating disability measures across British national surveys.
http://www.lse.ac.uk/LSEHealthAndSocialCare/MAP2030/docs/MAP2030DWPproj_report_final_revision%20160709.pdf.
- Jagger et al. 2009. Disability in later life: Causes, consequences and future prospects. Presentation.
http://www.lse.ac.uk/LSEHealthAndSocialCare/MAP2030/Seminars/Disability_seminar/MAP2030%2015%20Sept%20Handout.pdf
- National Records of Scotland. 2015. Scotland's Population 2015 Infographic Report.
<https://www.nrscotland.gov.uk/files/statistics/nrs-visual/rgar-2015-infog-booklet.pdf>
- Policy in Practice. August 2017. The cumulative impact of welfare reform: a national picture. Local Government Association.
- Powell, J, Mackintosh, S, et al. 2017. The role of home adaptations in improving later life. Centre for Ageing Better.
- Public Bodies (Joint Working) (Scotland) Act 2014.
<http://www.legislation.gov.uk/asp/2014/9/contents/enacted>
- O'Hare, M, Pryde, S, Gracey, J. 2013. A systematic review of the evidence for the provision of walking frames. *Physical Therapy Reviews*. Vol. 18:1
- Scottish Government. 2011. Age, Home & Community: A strategy for housing Scotland's Older People: 2012 – 2021.
- Scottish Government. 2012. Adapting for Change: The Adaptations Working Group's final report on effective systems, and support, for housing adaptations.
- Scottish Government. 2014. Local Housing Strategy Guidance.
<http://www.gov.scot/Publications/2014/08/3070>
- Scottish Government. 2015. The Benefits of Equipment and Adaptations. <http://www.gov.scot/Topics/Health/Support-Social-Care/Independent-Living/Equipment-Adaptations/ValueOfEandA>
- Scottish Government. 2015. Joint Housing Delivery Plan for Scotland. <http://www.gov.scot/Publications/2015/05/3392>
- Scottish Government. 2015. Statutory Guidance to Integration Authorities, Health Boards and Local Authorities on their responsibilities to involve housing services in the Integration of Health and Social Care, to support the achievement of the National Health and Wellbeing Outcomes. Housing Advice Note.
- Scottish Government. 2016. A Fairer Scotland for Disabled People. <http://www.gov.scot/Publications/2016/12/3778>
- Scottish Government. 2017. Age, Home & Community – The First Five Years.
<http://www.gov.scot/Publications/2017/10/4657>
- Scottish Government. 2017. Building Standards Technical Handbooks and Key Supporting Guidance.
<http://www.gov.scot/Topics/Built-Environment/Building/Building-standards/techbooks/techhandbooks>
- Scottish Government. 2017. Evaluation report on Adapting for Change, an initiative testing and developing recommendations on housing adaptations.
<https://beta.gov.scot/publications/evaluation-adapting-change/>
- Scottish Homes, 1998, Housing for Varying Needs – a design guide: Parts 1 and 2. The Stationery Office.
- Watson, L, Joseph, G et al. 2012. Mind the Step: an estimation of the housing needs of wheelchair users in Scotland, Horizon Housing Association.

Appendix 1 – Estimation of Housing Need

Introduction

A key aim of the research in 2017 was to update the estimation of need set out in Mind the Step 2012. The starting point for the research design was to use the Census 2011 data to replicate the calculation developed by Habinteg for Mind the Step in 2012. This involved:

- **Step 1:** Raw data from the Scottish Household Survey (SHS)/ Census 2011 was used to determine the number of wheelchair users.
- **Step 2:** This data was adjusted to take into account household growth in Scotland up to 2016.
- **Step 3:** Unmet need for 'indoor' wheelchair users was calculated using the data.
- **Step 4:** Unmet need for 'outdoors only' wheelchair users was calculated using the data.
- **Step 5:** The sum of both the 'indoor' and 'outdoors only' wheelchair users was used to calculate the overall unmet housing need in Scotland.

This methodology had limitations and therefore we also sought to triangulate this data with that from other sources. A key problem with the calculation of need for wheelchair users is that there is no one definitive source of the number of wheelchair users and references are circular, with each citing the same sources, none of which are robust and credible assessments of need for wheelchair housing.

Limitations of the Scottish Household Survey Data

Question CC3 of the Scottish Household Survey asks: **What, adaptation or aids do you use to get about indoors?**

The Question is asked ONLY of respondents who have answered 'yes' to the Question (HF1): **Could you tell me whether any of the people in the household has any physical or mental health condition or illness lasting or expected to last 12 months or more?**

The available responses were: **'Self-propelled wheelchair'** and **'Powered wheelchair'**. The findings from 2014 and 2015 are shown in Table A1.1 below:

What, adaptation or aids do you use to get about indoors?	2014	2015
Self-propelled wheelchair	2.7%	2.9%
Powered wheelchair	1.0%	1.2%
Total	3.7%	4.1%

Applying the SHS Data

We can apply the SHS survey data to 2015 population estimates to show that there are 22,805 households in Scotland where one or more members of the household uses a wheelchair inside the home (Table A1.2).

Table A1.2 Applying the SHS Data	
According to the SHS 2015, 23% of Households reported to having a limiting condition	23%
According to the 2015 NRS Mid Year Estimates, there were 2.4 million households in Scotland	2,418,335
Applying the SHS data, there are 556,217 households with people who have a limiting condition	556,217
Number of Households where there is a householder who uses a wheelchair inside (4.1% of 556,217)	22,805

But what about those people who use a wheelchair outside? It had been our intention to then use the methodology from the 2012 Mind the Step study and assume that the percentage of outdoor/ indoor wheelchair users is the same in Scotland as it is in England (that is 26% indoor, 74% outdoor) but the SHS does not ask respondents if they use a wheelchair indoors **only**. So some respondents will use a wheelchair both inside and outside and there would be an element of double counting which we cannot quantify.

When we compare this to the corresponding question in the English Housing Survey we find that respondents were asked whether they used a wheelchair indoors, outdoors or all the time.

Using the English Housing Survey Results

Published last year, the 2014-2015 English Housing Survey asks a more detailed question on the number and type of wheelchair users. The results have been extracted below:

Whether anyone in the household uses a wheelchair	No. 000's	%
No wheelchair user	21,512	95.4%
Uses wheelchair all the time	210	0.9%
Uses wheelchair indoors only	84	0.4%
Uses wheelchair outdoors only	521	2.3%
No answer	216	1.0%
Total	22,542	100%

Source: English Housing Survey, household sub sample

From this we see that there are three distinct categories of wheelchair users:

- Those that use wheelchairs both indoors and outdoors: 0.9% of households
- Those that use wheelchairs indoors only: 0.4% of households
- Those that use wheelchairs outdoors only: 2.3% of households

Applying the English Housing Survey Data:

We can apply the EHS survey data to establish that 3.6% of all households in England have a resident who uses a wheelchair indoors, outdoors or all the time. (Table A1.4).

Respondents were asked whether they used a wheelchair indoors/outdoors or all the time	
814,131 households had a resident that used a wheelchair, indoors, outdoors or all the time	814,131
This represents 3.6% of all households	3.6%
521,000 (64%) of those households included someone who only required a wheelchair outside	521,000
210,000 needed a wheelchair all the time (26%)	210,000
84,000 (10%) households had someone who just used their wheelchair when indoors	84,000

If we were to apply the ratio to Scotland and assume that 3.6% of households have a wheelchair user this would mean a total of **87,340 households have a wheelchair user**.

Triangulating the Data

In order to demonstrate that a number of data sources have been considered and to compare the results provided by each, the data has been triangulated through the use of data sourced from the Papworth Trust and data from Sports Scotland.

Papworth Trust Data

Estimates for the number of wheelchair users in England can also be sourced from the Papworth Trust, although this estimate is far lower than for the English Housing Survey. Table A1.5 provides an estimate of the number of households in Scotland, assuming the same proportion as in England.

Table A1.5 Applying Papworth Trust Methodology		
Applying Papworth Trust Methodology		
2%	of UK Population use a wheelchair	Papworth Trust Report 2016 ¹⁵
65,110,000	Total UK Population	ONS, 2015
1.3million	Total Wheelchair population UK	
566,174	Total Wheelchair user households UK	ONS, 2015
5,373,000	Total Population Scotland	NRS 2016
2.3	Ratio of households to Population in Scotland	
46,722	Wheelchair User Households in Scotland	

Sports England Data

In using the Sports England data we have assumed that the percentage distribution found in England is the same as would be found in Scotland.

¹⁵ <http://www.papworthtrust.org.uk/sites/default/files/Disability%20Facts%20and%20Figures%202016.pdf>
(page20)

Table A1.6 Applying the Sports England Data		
Using Sports England Data		
Assuming English % = Scottish %		
546,200* to over 726,000	Estimated wheelchair users in England	https://www.sportengland.org/media/3988/mapping-disability-the-facts.pdf
5-7% of all disabled people	Estimated wheelchair users in England	
19%	% of Scottish population that are disabled	
23%	% of Scottish households that are disabled	
1.1 million	Disabled Population	
51,044 to 71,461	Disabled population that use wheelchairs	
22,193 to 31,070	Disabled households that use wheelchairs in Scotland	

There is no one source of information on the number of household wheelchair users in Scotland. Estimates for England are available but they vary widely and when applied to the Scottish data, range from 22,193 to 87,340.

Overall it was decided that in order to use the most accurate dataset and to avoid double counting, the percentages gained through the English Household Survey would be applied to the number of Scottish Households. The Scottish Household Survey question does not properly distinguish between indoor and outdoor wheelchair use and is likely to have an element of double counting. It is therefore difficult to then apply the indoor/outdoor calculation to reach the total number of wheelchair user households as used in the previous Mind the Step study.

If we apply the EHS proportions to the Scottish data we find that:

3.6% of Scottish households have someone who uses a wheelchair and this accounts for 87,340 households

This figure is considerably lower than the 119,000 found in the 2012 study but the amended methodology provides a more accurate figure which can withstand scrutiny.



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