



Home Modification  
Information  
Clearinghouse



# **Home Modification Clearinghouse's Response to the Consultation Regulatory Impact Statement**

**“Proposal to include minimum accessibility  
standards for housing in the  
National Construction Code”**

31 August 2020



Consultation RIS: minimum accessibility standards for housing in the NCC  
Response by the Home Modification Clearinghouse

To Whom it May Concern,

**RE: Home Modification Information Clearinghouse (HMinfo) submission - Consultation Regulation Impact Statement: Proposal to include minimum accessibility standards for housing in the National Construction Code.**

HMinfo thanks the Australian Building Codes Board (ABCB) for the opportunity to provide feedback on the Consultation Regulation Impact Statement (RIS): Proposal to include minimum accessibility standards for housing in the National Construction Code (NCC) (the Consultation RIS).

### About the Home Modification Clearinghouse

The Home Modification Information Clearinghouse (HMinfo) was established in 2002. Its mission is: to collate, review, develop and disseminate evidence-based home modification knowledge in order to enhance the independence and wellbeing of older people and younger people with disability, provide a safe working environment for their carer's and care workers, and to promote evidence-based best practice to promote improved outcomes among home modification practitioners and prescribers.

HMinfo is a recurrent national research project funded through the Commonwealth Home Support Program (CHSP). HMinfo aims to develop and disseminate an evidence base for Home Modification interventions and it underpins the Ageing in place strategy and Age and Disability reform programs in Australia. HMinfo is a not-for-profit, open access accessible building knowledge-hub and one of Australia premier knowledge hubs funded through the Commonwealth Department of Health's Ageing and Aged Care servicing all of Australia and used by over 157 other countries.

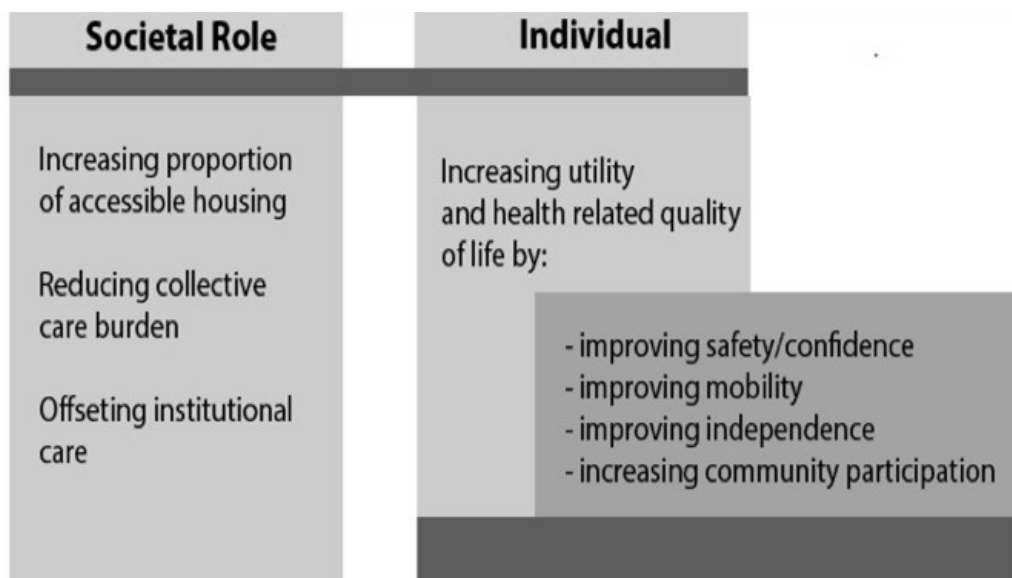
There are currently:

- 2,156 registered Australian Users;
- Over 355,973 home modification evidence-based publication downloads;
- 2 home modification Industry forums (Occupational therapists and Building Professionals);
- 2 Accessibility Apps for consumers.

### About Home Modification in Australia

It is important to state at the outset, that the practice of home modifications plays dual societal and individual roles as illustrated below (Fig. 1). Home Modifications may be considered complimentary but ***economic analysis based on home modifications is to***

***determine the value of Universal Design (UD) or Livable housing inclusion is fundamentally flawed.***



**Figure 1: Dual role of Home modifications** (Source: Bridge, C., Carnemolla, P. Home modifications. In Curtin, M., Molineux, M., & Webb, J. A. (Editors) (2009). Occupational Therapy and Physical Dysfunction E-Book: Enabling Occupation. Elsevier Health Sciences.)

The potential for change to the physical environment to reduce levels of disability has been well documented<sup>1</sup> and housing interventions that ameliorate dependence on home and community-based services are important because they help maintain independence and enable individuals to live in their own homes and communities. Further, home design and population wellbeing and health outcomes are linked<sup>2</sup>.

Home modification programs across Australia have historically been sporadic and underfunded and have significant unmet need<sup>3</sup>. There is no evidence that this has changed to any great degree and in fact with the advent of the aged care and disability care reforms, these services have been increasingly uncertain and difficult to negotiate.

Many chronic health conditions experienced in Australia can be ameliorated or improved by home modification but are not factored into the livable housing guidance which focuses on physical mobility and notions of Australian 90 Percentile standardised

<sup>1</sup> Altman, B., & Barnartt, S. N. (Eds.). (2014). *Environmental Contexts and Disability*. Emerald Group Publishing.

<sup>2</sup> Bridge, C., Flatau, P., Whelan, S., Wood, G., & Yates, J. (2003). Housing assistance and non-shelter outcomes. *Australian Housing and Urban Research Institute (AHURI)*, 40, 1-184.

<sup>3</sup> Jones, A., De Jonge, D., & Phillips, R. (2008). The role of home maintenance and modification services in achieving health, community care and housing outcomes in later life.

wheeled mobility. Yet the knowledge of the percentage of excluded Australians based on either 80<sup>th</sup> or 90<sup>th</sup> percentile values remains unknown<sup>4</sup>.

The human experience of housing is highly individualised, and each person's physical health and level of ability is unique, which directly impacts what daily tasks they can perform within their home and the extent to which they can perform these tasks. Thus, the practice of home modification unlike universal design is bespoke. This is similar to buying a garment off the rack that, even though it is the right size, may not fit perfectly compared to having a garment individually designed and tailored based on a person's specific measurements, requirements, preferences and intentions; the custom-made garment it is much more likely to 'fit' perfectly<sup>5</sup>.

Importantly, many Australians with chronic diseases **benefit from Home modifications that are not part of inclusions within any level of livable housing**.

For instance, Home modifications for:

1. [Mental and behavioural conditions - 4.8 million Australians](#) (20.1%) and here bespoke home modifications relate to automated service cut offs, specialised alarms, wall, door and window treatments for reducing aggressive behaviours and alleviating depression, self-harm and suicide;
2. [Hearing loss impacts around - 3.6 million](#) Australians and here bespoke home modifications relate to specialised smoke and doorbell alarms and improved noise cancellation from external environs by selected window, insulation and other acoustic interventions;
3. [Asthma and Chronic obstructive pulmonary disease \(COPD\)- 3.3 million Australians \(13.7%\)](#) and here bespoke home modifications relate to air purification, ventilation and built environment interventions that reduce allergens, volatile chemicals and other toxins in the home; and
4. Significant visual loss impacts - [410,800 Australians of whom 93% are people aged over 55](#) and here bespoke home modifications include bespoke lighting arrangements to tactile and auditory cueing<sup>6</sup>.

In discussing economic estimates there are several factors concerning home modification worth noting. First, the consultation RIS fails to acknowledge the unmet home modification needs that exist, both through ineligibility for funding i.e. through the NDIS (80% of people with disability) or via tight caps on funding as in the [Community](#)

---

<sup>4</sup> Sizing up Australia – the Next step  
<https://www.safeworkaustralia.gov.au/system/files/documents/1703/sizing-up-australia-chapter2-literature-review.pdf>

<sup>5</sup> Bridge C; Carnemolla PK, 2017, 'Effective Home Modification Practice', in Curtin M; Molineaux M (ed.), Occupational therapy for people experiencing illness, injury or impairment: Promoting occupation and participation, edn. 7th, Elsevier, pp. 690 - 705

<sup>6</sup> Data from the Australian Institute of Health and Welfare (<https://www.aihw.gov.au/>)

[Home Support Funding packages](#) that has a maximum cap on the subsidy for home modifications of \$10,000 per customer, per financial year<sup>7</sup>.

People with modification needs may often have a low Socioeconomic Status (SES)<sup>8</sup> and Home modification are typically a large one-off cost when compared to ongoing smaller costs such as providing a formal caregiver to assist someone in bathing. Nevertheless, home modifications has been shown to be effective as an economic strategy for reducing cost overall but this depends on a number of factors and perspectives vary depending on who pays over what period of time. Nevertheless, home modifications as a multifactorial intervention are generally viewed as cost-effective<sup>9</sup>.

In summary, the costs associated with assessment, recommendations and reporting on home modifications, and costs of interim alternative arrangements (including hospital admission, greater use of support workers and informal carer support, hire of hoists and other assistive equipment, rental or hotel accommodation) should be thoroughly assessed and factored into the analysis of the cost of home modifications.

Further while affordability is a critical concern for those paying, there are several other factors (Fig, 2) that currently prevent Australians from maximally benefitting as expected. These barriers fall into two main categories: practical and psychological. Practical barriers include financial problems, lack of knowledge, aesthetics/desirability, and tenure<sup>10</sup>. Practical barriers can be significant however the psychological barriers to home modifications which include concerns about stigma, lack of social support, and perception of need may be more problematic<sup>11</sup>.

---

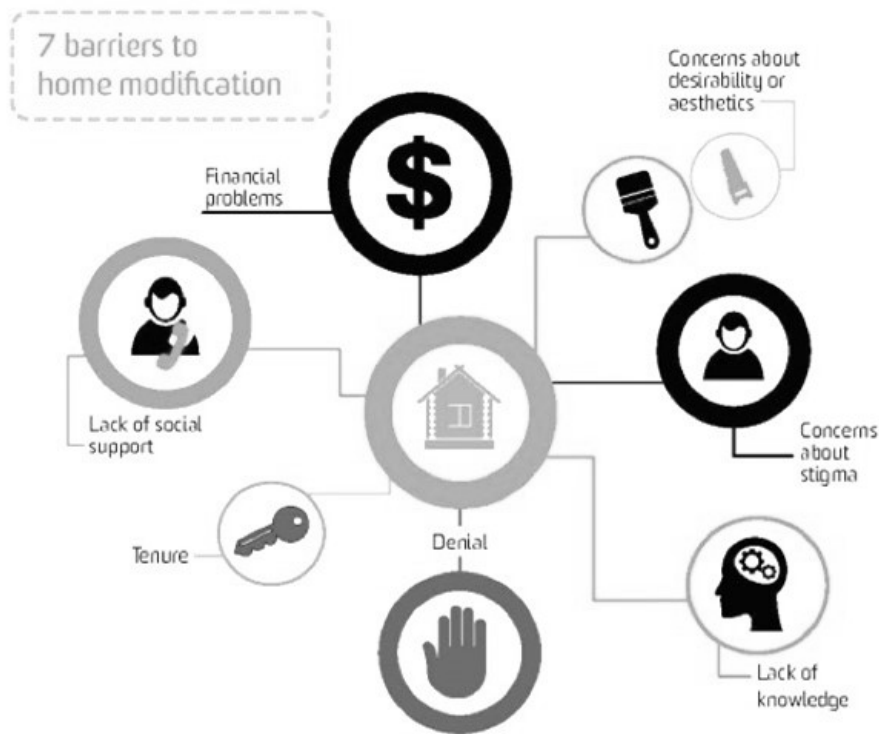
<sup>7</sup> CHSP program manual (<https://www.homemods.info/news-and-events/news/updates-to-the-chsp-program-manual>)

<sup>8</sup> Bridge, C., Phibbs, P., Gohar, N. & K. Chaudhary (2007) Identifying Barriers to Home Modifications: Evidence based research <https://www.homemods.info/resources/hminfo-research-publications/evidence/identifying-barriers-to-home-modifications-systematic-review>

<sup>9</sup> Jutkowitz, E., Gitlin, L. N., Pizzi, L. T., Lee, E., & Dennis, M. P. (2012). Cost effectiveness of a home-based intervention that helps functionally vulnerable older adults age in place at home. *Journal of Aging Research*, 2012.

<sup>10</sup> Bridge C; Carnemolla PK, 2017, 'Effective Home Modification Practice', in Curtin M; Molineaux M (ed.), Occupational therapy for people experiencing illness, injury or impairment: Promoting occupation and participation, edn. 7th, Elsevier, pp. 690 - 705

<sup>11</sup> Bridge, C., Carnemolla, P. Home modifications. In Curtin, M., Molineux, M., & Webb, J. A. (Editors) (2009). Occupational Therapy and Physical Dysfunction E-Book: Enabling Occupation. Elsevier Health Sciences.



**Figure 2: Barriers to home modification interventions** (Source: Bridge, C., Carnemolla, P. Home modifications. In Curtin, M., Molineux, M., & Webb, J. A. (Editors) (2009). Occupational Therapy and Physical Dysfunction E-Book: Enabling Occupation. Elsevier Health Sciences.)

Even if home modification was without barriers many profoundly and severely functionally impaired individuals cannot be accommodated by universal design because of extremes of weight and height, lack of any concern for behavioural or sensory loss and/or dependence on bathing trolleys and non-standard mobility devices etc.

**Home modifications are not universal design and cannot be assumed as a proxy for their costs.**

Livable housing as a future strategy for rehabilitation, alongside strategies for understanding home as a therapeutic space is at best a useful complement to bespoke individual and medical intervention-based design. Home modifications because of their bespoke nature do not and should not result in a more universally accessible home. Government intent in funding home modification is only to fund the minimal requirements proven to prevent functional decline, improve safety and maintain existing levels of independence for those with moderate to profound functional impairments, their carers and or those 'ageing in place' outside institutional care.

Home modifications types differ based on the age and needs of the person and the affordances of the home. For instance, Bicknell (2003)<sup>12</sup> found that the 'type of home modifications varied with age. Ramps and structural changes were more common in the homes of people aged under 30 years and hand and grabrails were more common in the homes of people aged over 30 years. Further, while we know that around 1 in 8 (approx. half a million) people with disability have modified their home because of their age or condition, we do not know how these impacts met or unmet need as this has never been researched.

Further, the assumption that universal design will substantively reduce the need for home modification is fundamentally flawed for two reasons. First, less than 2% of houses are new build annually. Second, the percentage of universally designed houses that could alleviate the need for home modification is unknown as it has never been researched but we do know that the five most common modifications depend on both the requirements of an individual and the affordances of their home and the majority are under a \$1000 and can be done without the need for licensed tradesmen i.e.. installation of grabrails/handrails.

**Adoption of Livable housing standards equate to Universal housing design and can address the key needs of disability and care outside some accommodations for mobility dysfunction.**

Most existing Australian housing cannot be modified to comply with the Silver level of Livability which means that substantial costs could be incurred in retro-fitting modifications to kitchens and laundries but mostly these can be done using modular furnishings for approximately \$20,000-\$40,000 if required. However, it is more difficult, often impracticable or impossible to add rooms, install lifts for split level homes or to widen doorways sufficiently wide to accommodate an Australian 90th percentile wheelchair.

Having made clear, the differences between home modification and Livable housing and the economic implications of both. It is clear that there is a need for much more research and as the lack of any robust research about the fundamentals of livable housing and the relationship between changes in the NCC and future needs remain unclear without further evidence-based research to better inform for policy in this area.

We strongly believe that education and incentives are also critical and would strongly support both in line with changes to the NCC for all new housing.

---

<sup>12</sup> Australian Institute of Health and Welfare (AIHW): Bricknell S 2003. Disability: the use of aids and the role of the environment. Disability Series. AIHW Cat. No. DIS 32. Canberra: AIHW.



HMinfo supports the implementation of both of the following options presented in the Consultation RIS:

**Option 2:** Accessibility standard, broadly reflecting LHDG gold standard, in the NCC applying to all new Class 1a and Class 2 buildings, AND

**Option 5:** A subsidy program to encourage additional availability of accessible rental properties

HMinfo like the AAGs believes that Option 2 is the required minimum, with any combinations of options an addition to this.

HMinfo is a member of the Australian Network for Universal Housing Design (ANUHD) and supports the ANUHD submission in response to the Consultation RIS (dated 25 August 2020). AAG supports and reiterates the detailed feedback on the Consultation RIS provided by ANUHD in this submission.

Please do not hesitate to contact me if you have any questions about this submission, would like more evidence regarding home modification, assistive technology in housing and the intersect of the above with environmental planning and social sustainability.

Kind regards,



Dr Catherine Bridge  
Professor of the Built Environment  
Director of the Home Modification Information Clearinghouse Service  
Program Director the Enabling Built Environment Research Program (EBEP)  
UNSW, Sydney, NSW 2052, AUSTRALIA  
Mobile: +61 416 004033  
Email: C.Bridge@unsw.edu.au  
Web: [www.homemods.info](http://www.homemods.info)