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HMinfo

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introduction

SECTION 1

1 INTRODUCTION

Welcome to the 2016/2017 Annual Report for the Home Modification Information Clearinghouse (HMinfo). Established in 2002, HMinfo is an information service tasked with collating, reviewing, developing and disseminating evidence-based home modification knowledge in order to enhance the independence and wellbeing of older people and younger people with disability; provide safe working environments for their carers and careworkers, and promote evidence-based best practice among home modification practitioners and prescribers.

In this report you will find:

- An explanation of the work we do and the online information that we provide;
- Our goals and objectives;
- An introduction to our people;
- A statement from our Director summarising the team's key achievements from the last financial year, including research output, keynote presentations, international collaborations and media involvement;
- Website Statistics: these are compiled from Google Analytics and our website's inbuilt reporting capabilities. The data is analysed to identify areas which need optimisation or changes in order to adapt to user trends, and ultimately to measure the effectiveness of our online strategy.
- A look into what the next year holds for us and what we plan to achieve.

For further information, visit the HMinfo website: www.homemods.info. It is free to register as a user and you may choose to receive regular updates from us.

To get more information, discuss issues or ask for assistance from our team, please email us at: hminfo@unsw.edu.au or call us directly on 1800 305 486 (free call).

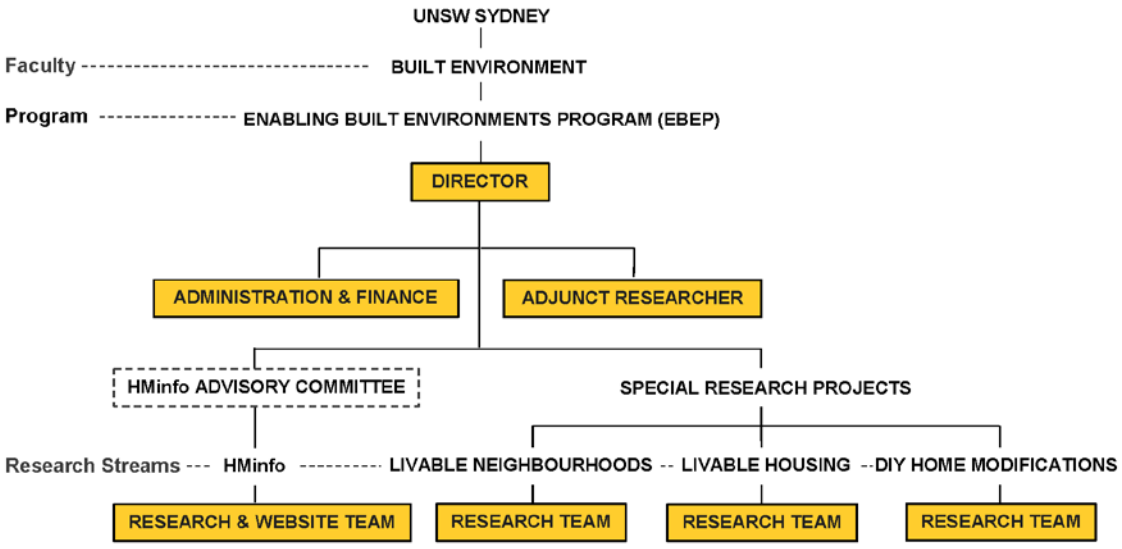
For quick updates, join us on Twitter@HM_Info, 'like' us on Facebook by entering "Home Modification Information Clearinghouse (UNSW)" into the search engine, connect with us on LinkedIn, or follow us on Pinterest.

1.1 Enabling Built Environments Program (EBEP)

The Enabling Built Environments Program (EBEP) is an initiative of the Built Environment faculty at UNSW. EBEP's research is concerned with how the built environment, from home to town centre design level, impacts human function, quality of life and health/care costs for older people, young people with disability, and carers. Funded projects range from the macro level e.g. the performance of town centres and housing supply, to the micro level e.g. temperature regulation valves, smoke detectors.

As shown in the chart below, EBEP currently comprises the Home Modification Information Clearinghouse (HMinfo), and Special Research Projects which has three research streams:

1. Livable Neighbourhoods
2. Livable Housing
3. DIY Home Modifications



The Special Research Projects complement and inform the work undertaken by HMinfo. The broad scope of EBEP research projects ensures that HMinfo's home modification research is suitably placed within the scope of current research and practice in the built environment for older people and people with disability.

For the financial year 2016-2017, HMinfo is funded by both the Australian Government Department of Health, under their Commonwealth Home Support Program (CHSP), and from the NSW Department of Family and Community Services (FaCS), Ageing, Disability and Home Care (ADHC), under their Community Care Support Program (CCSP).

The EBEP Special Research Projects' three streams of research are funded by a range of government and non-government organisations. In 2016-2017, these included: the NSW Department of Family and Community Services (FaCS); the Australian Research Council (ARC); the Australian Building Codes Board (ABCB); and industry partners Caroma-DORF and the Association of Consultants in Access Australia (ACAA).

With the global advent of population ageing and the ongoing transition of young people with disability to living in the community, understanding the complex transactions between the built environment and humans has become an increasingly critical factor in creating and maintaining sustainable informal and self-care systems for all nations.

EBEP benefits from its contract and casual research staff having a diverse skill set that includes: Industrial Design, Architecture, Engineering, Occupational Therapy, Health Sciences, Social Sciences, Social Policy, Statistics, and Planning.

Assoc. Prof. C. Bridge attending Research Seminar, Creating a Vision of a Universally Designed Metropolis: Towards the 2020 Tokyo Olympic and Paralympic Games.
Presented by: Prof. Satoshi Kose, 10 April 2017, BE, UNSW, Sydney, Australia.

1.1.1 EBEP Objectives

Our objectives continue to be:

- to build information and knowledge capacity within the residential and public construction sectors in order to improve design standards and to provide evidence for the effectiveness of special features to better the living environments of aged and/or people with disabilities, and their carers;
- integrate diverse knowledge and cross-disciplinary research;
- develop a leading edge enabling environments research cluster that will be accessible to the full range of industry and consumer target group;
- facilitate home and community care outcomes, focusing on residential and town centre design strategies;
- promote innovative residential models for older people and people with disabilities within the building and development industry;
- develop Factsheets detailing best practice principles for assessment and the setting of priorities for planning, assessment and intervention services;
- promote the benefits and products of more enabling design to the broader community through mainstream media;
- share information at international, national, state and regional industry forums and liaise with peak regional providers and consumers;
- ensure that there are effective links between built environment service providers and their end users.

1.1.2 EBEP Special Research Projects

EBEP Special Research Projects undertaken alongside the Home Modification Information Clearinghouse (HMinfo) during 2016-2017, spanned the three research streams. An overview of the projects in each research stream are provided below.

LIVABLE NEIGHBOURHOODS

Building Criteria, Vision and Luminance Contrast

This project examines how people with normal and impaired vision identify and assess building elements possessing various luminance and chromatic contrasts in terms of their appearance and functionality. The outcomes of the project are expected to provide descriptions regarding what kind of contrast should be possessed by colours and/or materials applied on building elements to ensure the elements to be visually identifiable, comfortable and favourable for people with and without vision impairment. The aim of the project is to establish applicable design criteria for architects, designers and accessibility experts, to apply or combine the colours and/or materials of building elements supporting visibility/ detectability and visual comfort for people with various visual functions.

The Building Criteria, Vision and Luminance Contrast project is funded by the Association of Consultants in Access Australia. It is due for completion in October 2017.

Performance Based Design for Safe Access and Movement

This series of research projects on safe access and movement, are concerned with the development of performance-based design and assessment methods for the safe traversal of ramps by wheelchairs, and the safe climbing of stairs. The projects are funded by the Australian Building Codes Board (ABCB).

Project 1 – Ramps Quantification and Metrics

The Ramps project is concerned with the development of performance based design and assessment methods for the safe traversal of ramps by wheelchairs. The challenge of performance based design (PBD) of accessible ramps needs to be based on inclusive design principles i.e. satisfy the needs of the user. As such the needs of the user in this instance would be reflected in being able to go up and down a ramp safely in terms of the approach conditions, the design and construction of the ramp and the wheelchair not being a barrier.

Stage 1 of the Ramps project involved a desk audit of the literature complemented by a survey of expert wheelchair users drawn from Spinal Cord Injuries Australia (SCIA) and Paraquad, on the safe traversal of ramps by wheelchairs. This audit and survey established the gaps in the literature as well as a framework for the development of a simple performance-based design process.

The ABCB required that the outcome of the process would be a simple metrics and quantification model delivering policy neutral solutions for ramp gradients, approaches and surfaces and the spacing of landings that would satisfy the performance provisions of DP1 and DP2 of the National Construction Code (NCC).

The findings from the desk audit were that the gaps in the data were minimal and that the expert wheelchair users were able to define the main elements of ramp traversal as being slope, length of run, transitions, surface characteristics, abutments, width, camber and other design issues. The desk audit did reveal a candidate PBD model that had been validated by experiment. The outcomes from the model matched the consensus of the expert survey. The latter were all accepted in the form of recommendations by the ABCB and have been used to form the boundaries for the Stage 2 Verification/ PBD Model.

The **Stage 2** verification method has been submitted to the ABCB in the form of a journal-quality paper with the user persona, wheelchair and surface rolling resistance data being developed at present as part of the final submission. It is hoped that the model will be reviewed by the expert wheelchair users, in conjunction with the quantification systems being developed as part of the Verification Method. The main feature of the model is that there are some design elements that are critical for users e.g. transitions, handrails and “guides”. Many of the design limits have already been provided by the users and validated by calculation.

A series of recommendations were made as a result of the desk audit and expert user survey as noted above. These recommendations were approved by the ABCB as framing the PBD Model / Verification Model currently being developed in Stage 2. The main feature of the model is that there are some design elements that are critical for users e.g. transitions, handrails and “guides”. These were identified by the users. There are also limits that have been set elsewhere in the literature on the wheelchairs themselves which are more complex. These were being rationalized with the users and will be “tested” once again with a panel of expert wheelchair users, so that the results are user centred.

Stage 2 is due for completion at the end of October 2017.

Project 2 – Stairs Quantification and Metrics

The Stairs project is concerned with the development of performance based design and assessment methods for the safe climbing of stairs. The challenge of performance based design (PBD) of stairs is to satisfy the needs of the user. At present the design requirements for stairs are prescriptive. The objective of the research is to develop a model and verification method that will develop a performance based solution that satisfies the needs of the user (reflected in the user being able to go up and down a flight or flights of stairs confidently and safely regardless of the building use e.g. residential, public buildings and outdoors).

Stage 1 of the project involved a desk audit to review evidence from the literature.

Several stair climbing models have been developed over the last four decades. Many of these models have been experimentally based and have not been used as predictive tools. A series of systematic reviews postulated the main causes for falls were associated with poor stair design, construction and maintenance. There were also studies that related falls to user behaviour (lack of focus or awareness). Regardless of the above one thing that is conclusive is that approximately 80% of all falls occur in descent due to narrow treads (goings) posing problems for users in foot placement. People deal with these narrow goings by angling their feet to fit on the tread. Other causes of falls can be attributed to lack of uniformity between each step in a flight (goings and risers), steep slopes, obstructions, distractions and lack of visibility or definition of each step.

The desk audit utilised the results of a factor analysis from a longitudinal case study of multiple flight stairs and users over a period of 35 years. The results prioritised the main areas of user concern and capability. The relationships identified were all statistically significant and reflected the concerns and design issues highlighted in the “Body of Knowledge”, which was summarised from a series of Systematic Reviews and Seminal Studies. These relationships are also confirmed by biomechanical and epidemiological studies. Data was therefore available for the development of a PBD Model utilising a two-stage approach based on foot placement performance and stance as well as handrail efficacy.

Stage 2 involves the development of a verification method and design model. A verification process has been proposed comprising two “steps”. The first step is to test the stair design for dynamic stability centred on foot placement. If the hypothetical user or “phantom” fails the first step then the design is altered with the addition of a handrail to intercept the “fall”. If step two is successful then the design can be fully documented. Stair ascent is also extremely important and the stairs are tested via a recently developed fatigue model. Foot clearance is also extremely important. The ascent assessment defines the placement of landings or rest points and also defines the maximum number of steps in each flight.

Stage 2 is due for completion in September 2017.

LIVABLE HOUSING

Livable Bathrooms for Older People

The Livable Bathrooms for Older People project commenced in 2012, with the aim of future-proofing bathrooms for older people, enabling them to live comfortably at home for as long as possible. Following a nationwide survey and in-depth interviews, we explored the effect of different toilet seat heights and its interaction with the use of a grab rail. We employed the principles of user-centred design and combined the users' feedback with our lab testing results to provide descriptive data for designers to refer to.

During 2016-2017, the grab-rail experiments and co-design workshops with our target users marked the highlight of this project. We conducted the grab rail experiments on a group of participants aged 60 years and over, with characteristics matched to reflect the needs of consumers, extracting data for designers to design products that would suit users of different statures, usage patterns and mobility characteristics. Using motion capture and anthropometric measurements, we compared the different orientations and positions of the grab rail with different usage patterns and bathroom tasks, particularly in the toileting environment. Various dimensions, positions and orientations of the grab rail in relation to different participants' characteristics were investigated.

The Livable Bathrooms for Older People project is supported by the Australian Research Council (ARC) Linkage Programme, GWA Group Limited and UNSW Research Grants. This project is now completed, with a promise of an extension to future project. The results will contribute to the knowledge to aid designers and builders to better understand geriatric users, alongside the basic guidelines of the Australian Standards.

DIY HOME MODIFICATIONS

DIY Home Modifications:
Stage 2 - Point-of-Sale resources for people with disability and their carers

Stage 1 of the DIY Home Modifications project investigated the issue of people undertaking home modifications themselves, and buying components from retail stores, catalogues and websites where they are unlikely to receive information about the suitability of the products, nor about how to install or maintain them. The research presented the perspectives of people with disability and carers who have undertaken DIY home modifications, and those of retailers, disability organisations and government departments. The Stage 1 project was completed in June 2015.

Stage 2 of this project was divided into two parts: a review of existing resources; and the development of new resources, including an App, called *DIYmodify* and factsheets. Participatory action research was used to design and develop the resources which could be made available at point-of-sale and will cover the decision making, selection, construction

and maintenance processes of the five most common DIY home modification types, which are: handheld shower, doorway ramp, handrail, level shower and grab rail.

Findings from the research include:

- Apps are difficult to search for, particularly as a layperson who may have no means of adequately assessing them or the information they contain.
- Information on any of the five home modifications identified did not cover the range of 'dimensions' identified for the literature review.
- There were no apps found that were for these home modification types, that were accessible and targeted to people with disability or older people.
- Co-design through a participatory action research methodology assisted in all aspects (wording, look, information architecture) of the development of a resource app and drove a creative, innovative solution.

The final app developed assists 'ageing in place' and is the only example found for people with disability and older people to make informed choices.

The Stage 2 project is funded by Ageing, Disability and Home Care, NSW Department of Family and Community Services. It is due for completion in August, 2017.

DIYmodify Launch, 19 May 2017

Pictured L-R: Mr Peter Simpson, President PDCN; Ms Serena Oven, Executive Officer PDCN; the Hon Ray Williams, MP, Minister for Disability Services; Prof. Alan Peters, Deputy Dean, BE UNSW and Assoc Prof Catherine Bridge

1.2 Home Modification Information Clearinghouse (HMinfo)

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 safe working environments for their carers and careworkers, and promote evidence-based best practice among home modification practitioners and prescribers.

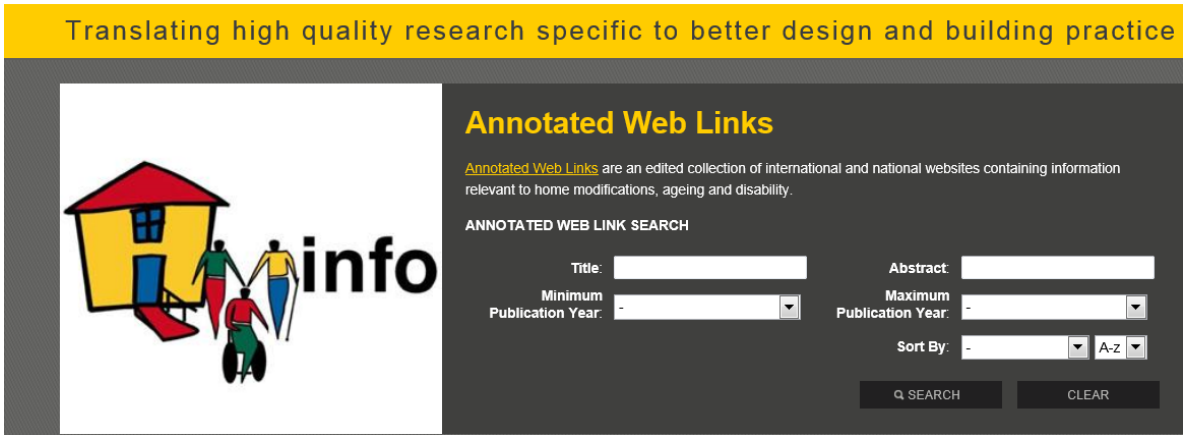
1.2.1 HMinfo Key Tasks

HMinfo's key tasks are:

- The collection and critical review of relevant national and international literature.
- The dissemination of findings in accessible and multiple formats, including knowledge translation, to the community, industry and other key stakeholders, to enable consumers and their carers to make informed choices and access evidence-based interventions.

1.2.2 HMinfo Home Modification Research Publications

HMinfo produce academically rigorous research-based documents on Home Modification policy and practice. Prior to publication, these documents are reviewed by Specialist Review Panels, comprising academic peer reviewers; expert practitioners in the fields of design, architecture, building, and occupational therapy; and consumer representatives for older people, people with disability, and carers.



The list of available online publications produced by our team includes the following:

Home Modification Evidence Based Practice Reviews

HMinfo Evidence Based Practice Reviews investigate the existing research evidence for the effectiveness of particular home modification design and building practices. Following a systematic review methodology, published literature on the design or building practice is examined. The literature search includes: databases of research studies in books and academic journals; legislation, Building Codes and Standards; Government, industry and consumer group websites; the HMinfo library collection of home modification publications and materials; grey literature documents, including industry guides and manufacturers' specifications; and anecdotal evidence from listservs, online forums, consumer peak bodies, and service providers.

Through evaluation of this published evidence, strategies most likely to achieve best practice home modification outcomes can be identified.

Home Modification Consumer Factsheets

HMinfo Consumer Factsheets translate research evidence for home modification design and building practices into concise information for consumers. This information is designed to assist older people, people with disability, and carers, when planning and undertaking home modifications.


Consumer Factsheet

Slip resistant floor surfaces

Do I need to have slip resistant floor surfaces in my home?

Where else in my home are slip resistant floor surfaces needed?

Most Consumer Factsheets are derived from Home Modification Evidence Based Practice Reviews, Occasional Papers or Summary Bulletins. Other Consumer Factsheets are developed in direct response to the need for a concise guide to arranging home modifications, or undertaking a particular type of modification.

Home Modification Industry Factsheets and Checklists

HMinfo Industry Factsheets and Checklists translate research evidence for home modification design and building practices into information that will assist home modification prescribers and practitioners.


Industry Factsheet

Slip Resistance of Ramps

Slip resistance requirements for ramps in the BCA (NCC 2016)

Industry Factsheets and Checklists are derived from Home Modification Evidence Based Practice Reviews, Occasional Papers and Summary Bulletins, or developed when concise guidance on a particular type of home modification is needed by industry.

Home Modification Occasional Research Papers
HMinfo Occasional Research Papers are individually commissioned research papers on existing or emerging issues in home design and home modifications for older people, for people with disability, or for carers. These policy and practice issues are identified by Government, Industry and Consumer stakeholders.

Occasional Research Papers include a systematic review of literature on the issue, and examine the policy impact and practice concerns. Many papers also report an original research study that is undertaken in response to the issue. Common types of study are design analyses, cost-benefit analyses, and consumer and industry surveys.

Home Modification Summary Bulletins
HMinfo Summary Bulletins provide a concise overview of the important issues relating to a particular home modification topic. These home modification topics are selected in response to an industry-identified concern or risk in home modification practices.

Summary Bulletins identify the applicable regulations, Standards, and industry and fair trading specifications and guidelines, for the home modification topic. A range of home modification approaches are then reviewed, with a comparison of their advantages and disadvantages for various housing and personal circumstances.

Summary Bulletins are intended to guide older people, people with disability, carers, and home modification prescribers and practitioners, in making home modification decisions. The information assists in determining the most appropriate home modification approach for each person, in the context of their home environment and care service mix.

1.2.3 HMinfo Home Modification Resources

HMinfo provides resources to support aged care and disability providers, and consumers. These include:

Home Modification Research Library
HMinfo edits and maintains an electronic Research Library database with over 3,500 online and hardcopy materials relevant to the home modification sector. The collection can be searched using our indexed lists, or by an open search using our tailored search engine.

Home Modification Subject Bibliographies
As a by-product of our research, HMinfo produces Subject Bibliographies of the best references for particular topics of interest to industry and other researchers.

Annotated Web Links
HMinfo Annotated Web Links are an edited collection of international and national websites containing information relevant to home modification decisions.

Block Library
The HMinfo Block Library is a collection of Computer Aided Drafting (CAD) assets developed

specifically to provide freely available Universal Design tools for both commercial and non-commercial stakeholders so that all can create spaces which take into account the size and movement restrictions of accessible mobility products. The Block Library is an essential step to facilitating the participation and social inclusion of the aged and people with disabilities in both private and public space design and redesign. These simple but significant downloadable drawings and models will provide all with the knowledge of space and other environmental requirements for the safe and effective access of a range of mobility products.

Case Study Library
The HMinfo Case Study Library showcases actual home modification cases submitted by website users so they can be reused for problem sensing and problem solving. The aim of sharing home modification problems and solutions, is to assist better and more effective practice outcomes.

Forums
HMinfo hosts three Forums: the Home Modifications Discussion Group, Home Modifications Professionals Forum, and Occupational Therapists Forum. The forums provide an opportunity for subscribers to exchange ideas and information relating to home modification for older people and people with disability, and are a useful and dynamic method for keeping up-to-date with developments in the field.

Events Calendar
HMinfo maintains an Events Calendar with Training and Events related to Home Modifications.

Newsletter
HMinfo produces a quarterly Newsletter containing information relating to home modification and maintenance issues and disability. Each publication contains an article, book review, and a website review, as well as upcoming publications, training and events.

1.2.4 HMinfo Research Projects

During 2016-2017, three key Home Modification issues addressed in HMinfo research Projects. These were *Temperature control for hot water in bathrooms*, *Use of colour for safe movement*, and *Slip resistance*. The *DIY Home Modifications* special research project was also integrated with an HMinfo project, to develop the HMinfo website interface for the DIYmodify app and associated HMinfo DIYmodfy factsheets and videos. In addition, the HMinfo website: http://www.homemods.info was improved with several upgrades to the appearance, interface, and usability. An overview of these projects is provided below.

Temperature control for hot water in bathrooms

This research focused on the safe provision of heated water in people's bathrooms for washing and bathing, through the installation of temperature limiting devices. In the twelve years following HMinfo's prior research on Thermostatic Mixing Valves, and publication of the Summary Bulletin of the same name, there had been considerable changes and additions to the regulations and requirements around the storage and delivery of heated water in a residential setting. The two public health concerns are: the risk of scald burns in water delivered too hot and the risk of microbial presence (particularly legionella) in heated water stored at temperatures too low. An analysis of Australian Standards and regulations addressed temperature limiting device options for use in people's homes: thermo-static mixing valve, tempering valve, or a hot water system compliant with AS 3498.

The HMinfo *Summary Bulletin: Regulatory requirements for controlling water temperature in bathrooms* 2nd ed. was published in October 2016.
The HMinfo *Consumer Factsheet: Controlling water temperature in bathrooms* is expected to be published in late 2017.

Use of colour for safe movement

This systematic review updated previous HMinfo research, published in the Evidence Based Practice Review: The application of colour and colour contrast in the home environment of the elderly and visually impaired individuals, in 2009. It examined and identified the kinds of colour application that effectively support safe and independent movement of older people and individuals with vision impairment, in their home. The use of bright colours, colour coding and colour contrast, which had been included in the previous review; were confirmed effective to provide better visual cues for older people and individuals with vision impairment. However, use of an aesthetically preferred colour, which was also outlined in the previous edition, had insufficient evidence supporting its effectiveness compared to other applications. This review also confirmed that colour applications improved several aspects of movement of older people and individuals with vision impairment within home environment that also had been described in the previous review. These improved aspects are: recognition of the surroundings; spatial orientation; independence and mood. Further studies are expected to inform how lightness/brightness difference and chromatic/ colour difference a commonly known part of colour applications should be used, positioned and specified when defining expected building performance outcomes and accessibility standards for people with various visual functions or vision impairments.

The HMinfo *Evidence based practice review: Use of colour for safe movement 2nd ed.* was published in October 2016. This document was translated into practical information for industry and consumers, published in March 2017:

- HMinfo *Industry factsheet: Colours for the homes of people with ageing eyes or vision impairment* 2nd ed.;
- HMinfo *Industry checklist: Colours for the homes of people with ageing eyes or vision impairment* 2nd ed.; and
- HMinfo *Consumer factsheet: How can colours support movement of people with ageing eyes or impaired sight?* 2nd ed.

Slip Resistance

Slips and falls are a major cause of serious injury in the home. Older people are at a higher risk of falls and greater resulting injury. This research examined the role of slip resistant floor surfaces in reducing slips and falls, and identified methods for selecting appropriate slip resistant floor surfaces, modifying existing floor surfaces to make them more slip resistant, and processes needed for keeping them slip resistant.

The research focused on two main issues: the requirements of the Building Code of Australia (BCA) for slip resistant surfaces on stairs and ramps, and the need for slip resistant floor surfaces in other areas of the home. In recent years, the BCA has introduced 'Deemed-to-Satisfy' (D-t-S) provisions for slip resistance. In 2016, BCA's newest D-t-S slip resistance specifications for all new home ramps, had major implications for home modification providers. A lack of information available and widespread industry concern that common materials used for accessibility ramps would not meet the BCA requirements, led to urgent investigation the implications of these slip resistance requirements.

HMinfo *Industry factsheet: Slip resistance of ramps 2nd ed*. was published in July 2016. HMinfo *Consumer factsheet: Slip resistant floor surfaces* was published in March 2017.

DIYmodify app – integrated videos and factsheets

The *DIYmodify* app. developed in the special research project *DIY Home Modifications* project included a series of videos and factsheets available for viewing and download on the HMinfo website: www.homemods.info. Integrating the app with videos and factsheets on the HMinfo website provides the flexibility for rapid addition and updating of video and factsheet content in response to changes in home modification practices and user feedback. The videos, and these 22 factsheets were published in conjunction with the launch of the DIYmodify app., in May 2017:

- HMinfo *DIYmodify Factsheet: Accessibility*
- HMinfo *DIYmodify Factsheet: Choices for grab rails*
- HMinfo *DIYmodify Factsheet: Choices for handheld showers*
- HMinfo *DIYmodify Factsheet: Choices for handrails*
- HMinfo *DIYmodify Factsheet: Electrical zones in the bathroom*
- HMinfo *DIYmodify Factsheet: Home Modification quotes*
- HMinfo *DIYmodify Factsheet: Home Modifications in rental and strata title properties*
- HMinfo *DIYmodify Factsheet: Skills needed: Angled grab rail*
- HMinfo *DIYmodify Factsheet: Skills needed: Concrete ramp*
- HMinfo *DIYmodify Factsheet: Skills needed: Drop down grab rail Clearinghouse*
- HMinfo *DIYmodify Factsheet: Skills needed: Floor mounted handrail*
- HMinfo *DIYmodify Factsheet: Skills needed: Hob and infill*
- HMinfo *DIYmodify Factsheet: Skills needed: Metal ramp*
- HMinfo *DIYmodify Factsheet: Skills needed: Rubber ramp*
- HMinfo *DIYmodify Factsheet: Skills needed: Shower head on a flexible hose*
- HMinfo *DIYmodify Factsheet: Skills needed: Shower head on a sliding bar*
- HMinfo *DIYmodify Factsheet: Skills needed: Step down shower*
- HMinfo *DIYmodify Factsheet: Skills needed: Straight grab rail*
- HMinfo *DIYmodify Factsheet: Skills needed: Timber ramp*
- HMinfo *DIYmodify Factsheet: Skills needed: Wall mounted handrail*
- HMinfo *DIYmodify Factsheet: Slip resistance*

HMinfo website upgrades

A new website development plan was created for 2016-2018, and four major upgrades to the HMinfo website were undertaken during the initial, 2016-2017, period. These improvements were:

- new content: Home Mods and Apps
- layout enhancements;
- video streaming capabilities; and
- user feedback forms.

Two items of new content were added to the website, in response to changes to Home Modification policy and funding methods, and new methods of Home Modification information delivery. The new Home Mods web pages provide quick access to information on what a Home Modification is, and how to arrange a Home Modification. The new Apps webpages contain the integrated factsheets and videos for the HMinfo *DIYmodify* app, and will accommodate future apps on Home Modifications.

The website's ease of navigation has been improved by adjusting the website layout to accommodate the new content, increase overall legibility and provide a consistent page hierarchy. The previous mega menu was replaced with a tabbed menu that strictly represents internal content and delegates nested links to a side menu to reduce the confusion a user may experience when presented with a two or three level link hierarchy that is typical for a mega menu. In addition, the tabbed menu minimises mouse cursor movements by removing the need to hover the mouse cursor over the menu to navigate it (in cases where keyboard navigation is not used). 'Breadcrumbs' were also added to each page to aid the user in determining their location within the websites structure and to help them navigate back to a parent page using industry standard techniques. The new layout and structure were further enhanced by increasing default font sizes and line spacing to improved legibility.

A video streaming and hosting function was added to the website, to provide home modification information through video content. Videos are tracked and download links are provided to users who wish to keep an offline copy.

User feedback forms were added to the HMinfo 'Contact Us' page and to each publication page. These feedback forms allow website users to submit feedback on the HMinfo service and individual publications. Users can submit their feedback anonymously or include their contact details if they would like a response to their feedback.


our people
SECTION 2

2 OUR PEOPLE

2.1 HMinfo Team

The HMinfo team is led by Director, Associate Professor Catherine Bridge. HMinfo team members combine experience from a range of design and health disciplines, including architecture, industrial design, occupational therapy, and health science.

2.1.1 Director

Associate Professor Catherine Bridge has an international reputation in the area of research concerning housing, disability, ageing and care. Catherine directs the Enabling Built Environments Program (EBEP) within UNSW Built Environment, which comprises the Home Modification Information Clearinghouse (HMinfo), funded continuously since 2002 by the Australian Government Department of Health, and NSW Department of Family and Community Services, and three special research projects: Livable Neighbourhoods, Livable Housing, and DIY Home Modifications, funded by a range of government and non-government organisations. Through my extensive industry connections, Catherine works for improved processes and outcomes for society bringing an evidence-based perspective.

The work that Catherine has led has shown that the built environment can improve every aspect of quality of life; improve relations with family and friends; and reduce care by 42%[1]. Catherine's research work has informed discipline-specific teaching. Within UNSW, Sydney Catherine has contributed significantly to governance via roles as Associate Dean of Research, Presiding Member and Research Quality Leader for the CRC Low Carbon Living. Most recently she has been instrumental in assisting in the establishment of a cross-faculty Disability Institute in due for commencement in late 2017.

[1] Carnemolla, P. K., & Bridge, C. (in press). Accessible Housing and Health-Related Quality of Life. International Journal of Architectural Research, 10(2).

2.1.2 Research and Website Team

Toni Adams was a consultant to HMinfo during 2016-2017. From her many years working for Commonwealth and NSW government departments, Toni has an extensive knowledge of the non-government and government sectors, especially in ageing, disability and community care. She was a consultant to the Aged and Community Care sector, including government, from 2006 until June 2016, and has provided expertise to HMinfo for several years, in Home Modification research, policy and practice. Toni has an interest in ageing in place and strata title.

Phillippa Carnemolla was a research associate at HMinfo from 2009 to July 2016. She is a Research Fellow and Industrial Designer with extensive experience in design practice, research, education and expert witness service. Phillippa has a Bachelor of Industrial Design and Masters of Design (Research) from University of Technology, Sydney, and a PhD from UNSW, Sydney. Her PhD, completed in 2015, investigated the impact of home modifications on caregiving and health-related quality of life. Phillippa's research interests are focused on human-centred and inclusive design of housing, urban infrastructure and new technologies for older people and people living with disability.

Helmut Hoss has been assisting HMinfo with website development and maintenance, since 2011. Helmut is a website and software developer with system administration, computer hardware, security and networking skills. An autodidact in electronics and programming since childhood, Helmut began developing corporate IT systems during high school and training computer science interns from the University of Technology, Sydney while completing his HSC. He currently develops antivirus utilities, computer vision applications and automated financial instrument trading robots that process multimillion dollar trades.

Judy Lim is the Administration Officer in the EBEP, managing finance, administration and reporting requirements for HMinfo and EBEP special research projects. Judy has a Bachelor of Social Science and a wide knowledge of financial administrative systems, including finance and budget planning. She has worked in a variety of financial and administration roles in Schools and Research Centres at UNSW Sydney.

Aldyfra Lukman was a researcher officer at HMinfo during 2016-2017, examining the application of colour for safe movement. Aldyfra is an Architect and a current PhD candidate at UNSW Sydney, with a research interest in inclusive design, vision impairment and colour applications in architecture. His PhD thesis concerns visibility and vision-based guidelines for the built environment, and is being conducted with the assistance of the Association of Consultants in Access Australia (ACAA), and the Built Environment faculty and School of Optometry and Vision Science, at UNSW Sydney.

Joanne Quinn has worked as a Research Associate at HMinfo since 2012. Joanne is an Industrial Designer, experienced in product design and management in Australian manufacturing, design education and research. She has a Bachelor of Industrial Design, Master of Science (Research) and PhD from UNSW, Sydney.
Her doctoral research on ‘A home for all ages’ focused on flexible and universal housing design for the ageing population. Joanne’s research interest is in inclusive design for all ages and abilities, and innovation in home and product design.

2.2 HMinfo Advisory Committee

The HMinfo Advisory Committee represents a wide cross-section of stakeholders, including industry, aged and disability peaks, and government. Our Advisory Committee meetings are held at the Built Environment (BE) faculty at the University of New South Wales, Kensington Campus. In 2016-2017, there were 19 members participating in the HMinfo Advisory Committee.

2.2.1 Advisory Committee Members - Industry

ASSISTIVE TECHNOLOGY AUSTRALIA

Hamish Murray is an Access Consultant at Assistive Technology Australia. Hamish worked in the building industry for 30 years, holding a Builders Contractor Licence, and since returning to the workforce after his accident in 2002, worked in the field of OHS plans and audits. Over the past 10 years he has worked with people recovering from catastrophic injuries, giving him an extensive practical understanding of the needs of a person with disability in both public and private environments, and a keen interest in providing, safe more user-friendly communities.

DEPARTMENT OF VETERANS AFFAIRS
NSW STATE OFFICE

Susan Dinley, Occupational Therapist, has had extensive clinical experience in many clinical areas since 1984. Within the occupational therapy profession, she has received recognition for her contribution on present and future issues pertinent to the profession. Susan is an honorary committee member on many government and private enterprise working parties, providing feedback on proposed policy initiatives and the impact on occupational therapy services.

HOME MODIFICATIONS AUSTRALIA

Michael Bleasdale is the CEO of Home Modifications Australia (MOD.A). Prior to this he worked as Senior Policy Officer at HMinfo from September 2013 to February 2014. Michael has worked in the community sector for thirty years, working initially as a disability support practitioner and manager. Later, he was Principal Researcher at the Disability Studies and Research Institute, before becoming an Executive Director at People with Disability Australia, and later at the Attendant Care Industry Association. He has published research on housing and support arrangements for people with disability, and written widely on issues of human rights for people with disability, and on self-determination and individualised funding. Michael has taught introduction to disability subjects at the Australian Catholic University and Charles Sturt University, and was the Subject Coordinator for Habilitation at Charles Sturt in 2006. In addition, he has developed and delivered training, developed competency based vocational training packages, and undertaken independent consultancy projects.

icare

David Gonzalez originally a physiotherapist, is the representative from icare (previously the Lifetime Care and Support Authority (LCSA)). icare is responsible for providing reasonable and necessary treatment, rehabilitation and care as it is needed throughout a person's life once they enter the program. David is responsible for developing and implementing Home Modification and Maintenance processes, policies and guidelines within icare.

NSW HOME MODIFICATION & MAINTENANCE SERVICE
3 BRIDGES COMMUNITY

Bryan Molan is Home Modification and Maintenance Manager at 3Bridges Community, which holds the CHSP funding for the South East Sydney region and a registered provider of Home Modifications with NDIA. Bryan is a licensed builder with over thirty years' experience in the building industry, nine of which have been in the home modification sector. He is also serving on the Home Modifications Australia (MOD.A) board and holds the position of Chairperson.

NSW HOME MODIFICATION & MAINTENANCE SERVICE
SCOPE HOME ACCESS

Annette Hanly is a practicing Occupational Therapist (OT) and Divisional Manager for OT services within the South Coast Home Modification and Maintenance Service, trading as Scope Home Access. She has worked extensively in the field of Home Modifications, both in the UK and Australia. Annette is committed to developing services that promote choice and safety for people within their preferred home environment and has a keen interest in the use of technology to streamline and customise all consultation and prescription practices.

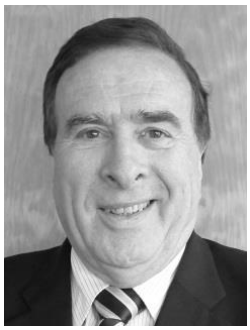
NSW LAND & HOUSING CORPORATION

Nicholas Loder, Architect, is Senior Project Officer, NSW Land and Housing Corporation, Family and Community Services. Since 2003 he has provided design policy advice for multi-unit medium density residential and major refurbishments projects for LAHC, especially on access standards, Liveable Housing/Universal Design features and the NDIS. Prior to this, Nicholas spent nearly twenty years in various small to medium sized architectural firms designing and documenting medium density housing, commercial, heritage, correctional and industrial projects. Nicholas sits on various committees including the NSW Chapter Australasian Housing Institute, and is a Director of the Centre for Universal Design Australia.

NSW STATEWIDE LEVEL 3 PROJECT

Ronald Rademaker is the Business Unit Manager for NSW Statewide Home Modification, working in the metro, rural and remote regions of the state. Ronald has over 40 years' experience as a carpenter/builder, and held the position of construction manager for a large residential building company prior to working in the home modifications field. In 1999, Ronald joined a home maintenance and modification organisation, first as a builder, then taking up the role of builder/coordinator. He has been on the State Council for HMMS over a 10-year period and was involved with HMinfo as it was being established in 2002.

PARAQUAD



Max Bosotti is the CEO of the Paraplegic and Quadriplegic Association of NSW (ParaQuad NSW), a community organisation that supports people with a spinal cord injury (SCI) across NSW. Prior to joining ParaQuad in 2006 Max has 36 years' experience in senior line positions in the petroleum, investment banking and high technology industries. Max is passionate about helping people with SCI live as valued and respected members of their communities. A major focus has been the provision of suitable accommodation for people with SCI and the deployment of the specialist Clinical Programs team enabling people to live better lives at home.

OCCUPATIONAL THERAPY AUSTRALIA (OTA)

Deborah Hammond is an occupational therapist with extensive experience in home modifications, disability access and safety in design. She has worked with home modification services and private builders on minor and major building modifications. She provides design advice on disability accommodation and design reviews on health facilities including hospitals, cancer centres, rehabilitation facilities and residential aged care. Deborah lectures on safety and design for Consult Australia, and guest lectures at Sydney University School of Architecture and Australian Institute of Architects. She has also delivered environmental modifications training to occupational therapists in NSW.

2.2.2 Advisory Committee Members – Aged & Disability Peaks

COUNCIL ON THE AGEING NSW

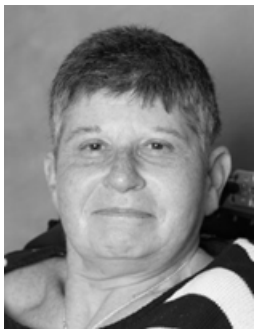
Lisa Langley is Policy Manager, Council on the Ageing NSW. Lisa has worked for over a decade in social policy and research and held senior policy and management positions at major NGOs, including the Asthma Foundation and Alzheimer's Australia NSW. Lisa is also an expert in consumer engagement methodologies and is an experienced facilitator. She has a Master's degree in Policy Studies from the University of New South Wales.

NATIONAL SENIORS AUSTRALIA

Janice Herbert is a gerontologist, and member of the National Seniors Australia NSW Policy Advisory Group. She has extensive experience in aged care, public administration and health care. Janice has been an invited speaker at many National and International conferences and has published papers related to ageing. Her professional interests are health, housing, economic and policy issues as they relate to older people.
Janice represented National Seniors Australia on the HMinfo Advisory Committee until September 2016.

Irene Stein is the National Seniors Australia NSW Policy Advisory Group Chair and National Policy Congress member.

PHYSICAL DISABILITY COUNCIL OF NSW



Jordana Goodman was the Policy Officer of the Physical Disability Council of NSW (PDCN), the peak body representing persons with physical disabilities across NSW, until her recent retirement. Jordana provided feedback to Local Councils, and State and Commonwealth Government Departments, on government initiatives and campaigns that impact on the daily lives of people with physical disability. Her focus was in the areas of accessible public transport and accommodation for all people with physical disability.

Arabella Peterson is the Social and Online Media Officer of the Physical Disability Council of NSW (PDCN), the peak body representing persons with physical disabilities across NSW. Arabella's role involves sharing relevant and useful information across PDCN'S media channels as well as responding to queries and feedback. She is keen to gain more expertise and build skills in the area of accessibility and universal design in order to continue to offer a range of valuable information to PDCN's members and followers.

SPINAL CORD INJURIES AUSTRALIA (SCIA)

Greg Killeen has been working at Spinal Cord Injuries Australia (SCIA), since July 1991. Greg was an SCIA Information Officer providing information and referral to people with disability, their families, friends, carers, professionals and the general community, including people working in related disciplines who required information on home modifications and maintenance, access to buildings and the built environment, travel, transport, holidays and travel, health and medical support services, as well as assistive technology etc. Greg was recruited to work as the SCIA Senior Policy and Advocacy Officer and predominantly works on systemic advocacy as well as individual advocacy when required. He is also an active member on various government, non-government and community committees and organisations.

2.2.3 Advisory Committee Members – Government

NSW DEPARTMENT OF FAMILY & COMMUNITY SERVICES

Teresa Petric is the Manager Policy and Projects in Ageing, Disability and Home Care, NSW Department of Family and Community Services. In this role, Teresa manages operational policy and program requirements for the NSW Community Care Support Program (CCSP). The CCSP provides funding for the provision of community care services to younger people with disability (people under 65 years of age or under 50 years of age for Aboriginal and Torres Strait Islander People).

AUSTRALIAN GOVERNMENT DEPARTMENT OF HEALTH

Charles Gwynn is the Department Representative of the Australian Government Department of Health, on the HMinfo Advisory Committee.

NATIONAL DISABILITY INSURANCE AGENCY

Lee Davids is Director, Design Authority at the National Disability Insurance Agency.

2.3 HMinfo Specialist Review Panels

The Specialist Review Panels provide HMinfo with the expertise for a comprehensive review process for their published documents. The review aims to fulfil the function of a traditional academic peer review of HMinfo documents by researchers in the same field. However, the review also contributes the valuable knowledge of experts in other fields, including design, building and healthcare, as well as the experiences of people with a wide range of disabilities.

The Specialist Review Panels are comprised of three regular panels of four to seven members: the Consumer Panel, Industry Panel, and Research Panel. These panels provide specialist advice and represent the viewpoint of a wide range of stakeholders. Accordingly, panel membership aims to include members with various backgrounds and experiences. At times, publications may require the co-opting of people with a specific specialty or expertise, as guest expert reviewers.

HMinfo would like to acknowledge and thank all the participants listed below for their involvement during 2016-2017.

2.3.1 Research Panel Members

Dr Satoshi Kose	Professor Emeritus, Shizuoka University of Art and Culture

2.3.2 Industry Panel Members

Beverley Garlick	Royal Australian Institute of Architects NSW
Nicholas Loder	NSW Land & Housing Corporation (guest expert)
Mark Relf	Association of Consultants in Access (guest expert)

2.3.3 Consumer Panel Members

Dr Janice Herbert	National Seniors
Jane Bryce	Access Consultant (guest expert)

director's

REPORT – SECTION 3

3 DIRECTOR'S REPORT

3.1 Executive Summary

A continued focus on policy is important as home modifications are a major strategy in the push toward greater provision of care services in the home. Without a safe and secure home base care at home or self-care which affords both autonomy and control is infeasible. Yet for many older Australians policy concerning better housing outcomes that could prevent premature institutionalisation has been overridden by sustainability and densification agendas. This finding is unsurprising, given the complexity of demand and supply side issues in combination with housing undersupply and the voluntary nature of housing design guidance. Smaller lot sizes and minimum frontages for dwelling houses and dual occupancy dwellings are required to address rising house prices and planners argue that the delivery of lower price points will open up housing options to those who would otherwise be permanently priced out. Allowing greater density may improve affordability, but there is an inherent tension as the very people to whom affordability is critical such as self-funded retirees or those on disability or aged pensions are the very people most likely to benefit from better design or liveable housing design.

Housing Industry analysis of renovation data makes clear, reducing lot sizes lead to more substantial and expensive modifications such as, second storey additions. The higher costs associated with lift installation when 'going up' vertically rather than horizontally, may mean it is more cost effective to move house rather than undertake this sort of change. However, the undersupply of cheaper accommodation in the same locale and other transaction costs in Australia, such as moving costs and stamp duty acts as a primary disincentive[2].

With increasing densification in Australian cities, we have seen structural changes in the composition of Australia's new housing stock and the majority of new stock are multi-unit strata title buildings of four or more storeys. Additionally, the condition or structure of a dwelling may make modification impossible or prohibitively expensive. For instance, structural changes to a bathroom in a high-rise unit could impact the structural stability of the building as a whole[3]. This is a call for action to bring these agendas into a more considered space where these issues can be examined more inclusively, so that social sustainability can be achieved.

Universal design for new build is difficult to get widespread implementation of at scale especially in the absence of any regulation to enforce it. Indeed, there are many competing demands that impact planning priorities and outcomes. With six states, two territories and 560 local governments operating independently, it is unsurprising that without a National

[2] HIA Economics Group Note, (June 2014) Renovations Out of the Blocks. Available from https://hia.com.au/~/media/HIA%20Website/Files/IndustryBusiness/Economic/research/Renovations_Demand_June_2014.ashx

[3] Easthope, H. & van den Nouwelant, R. (2013). Home Modifications in Strata Properties, Sydney: City Futures Research Centre, University of New South Wales. Retrieved from https://cityfutures.be.unsw.edu.au/documents/69/Hazel_DiscussionPaperFINAL.pdf.

regulatory framework that a plethora of approaches have arisen; creating confusion and undermining universally designed housing as a viable option for older people wishing to age in the same locale. For instance, the most critical for government to align are dwelling prices, sustainability and liveability or design affordance all of which can impact affordability and land value.

It is my greatest hope that timely modification of policy setting can achieve greater home modification impact. To get the expected uplift of home modification interventions, it is important that both policy and community services are further developed to enable older people to identify, fund and commission the required structural changes to their living environments. Bathroom modification, as an example relies on quality standards and skilled trades as specialised knowledge of the built environment is also required because of its compositional nature. For instance, modification to the toilet requires consideration of materials, services and components. Meaning that if the type of toilet transfer (side transfer from a mobility device, standing transfer or front transfer etc…) is not fully understood the measurement critical to its success or otherwise may not be appropriately considered.

Having examined some of the supply and demand side issues and in identifying some strategies that could make home modification more accessible in light of the evidence for their effectiveness in reducing care burden. It is hoped that policy reform within Australia helps us realise the full potential for home modification to promote greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing will be reached. Especially as the community as a whole may benefit from housing that has the potential to meet the needs of its occupants better.

Professor Catherine Bridge,
Director
Home Modification Information Clearinghouse

3.2 HMinfo Workplan 2016-2017

The HMinfo Strategic Planning meeting for 2015-2017 was held on August 6, 2015. At the meeting, the HMinfo Advisory Committee, and the HMinfo Director and team members, reflected on the HMinfo website and activities, and discussed the impact of environmental changes and challenges on HMinfo. Through identification of HMinfo strategic priorities and performance indicators for the following two years, the HMinfo 2015-2017 Strategic Plan was developed.

From the HMinfo 2015-2017 Strategic Plan, HMinfo developed Activity Work Plans for 2015-2016 and 2016-2017. The *Activity Work Plan Commonwealth Home Support Program (CHSP) Workplan 1 July 2016 to 30 June 2017* is shown on the following pages, with the reported measures of success for the year.

HMinfo receives 77% of funding from the Australian Government Department of Health through the Commonwealth Home Support Programme (CHSP) and 23% from the New South Wales Government Department of Family and Community Services (FaCS), through the Community Care Support Program (CCSP). This program no longer requires annual Activity Work Plans.

Activity Work Plan Commonwealth Home Support Program (CHSP) Work Plan 1 July 2016 to 30 June 2017

AUSTRALIAN GOVERNMENT DEPARTMENT OF HEALTH, COMMONWEALTH HOME SUPPORT PROGRAMME (77% HMinfo funding)

ACTIVITY DETAILS

Activity Requirement:	The objectives of the Home Modification Information Clearinghouse Activity include: 1. Build the capacity of Commonwealth Home Support Programme providers to deliver entry-level community aged care services. 2. Provide guidance to stakeholders consistent with the Commonwealth Home Support Programme to support the transition of service providers and access to aged care services
Activity Work Plan period:	Activity Work Plan Start Date: 01/07/2016 Activity Work Plan End Date: 30/06/2017

ACTIVITY DELIVERABLES

Objective: Build the capacity of Commonwealth Home Support Programme providers to deliver entry-level community aged care services.

Deliverable	Timeframes	Measures of success
DoH endorses CHSP Activity Workplan 2015-2017	3 months	CHSP Activity Workplan 2015-17 signed off by the Department of Social Services on the 25th October 2016.
Update and review evidence published on HMinfo website which reflects current good practice and the developing home modifications evidence base so as to support older people and their carers	Ongoing	Active research projects during 2016-2017: • Temperature control for hot water in bathrooms • Use of colour for safe movement • Slip resistance • DIYmodify app – integrated videos and factsheets HMinfo research publications 2016-2017: • Summary Bulletin: Regulatory requirements for controlling water temperature in bathrooms 2nd ed. • Evidence Based Practice Review: Use of colour for safe movement 2nd ed. • Industry Factsheet: Colours for the homes of people with ageing eyes or vision impairment 2nd ed. • Industry Checklist: Colours for the homes of people with ageing eyes or vision impairment 2nd ed.

ACTIVITY DELIVERABLES

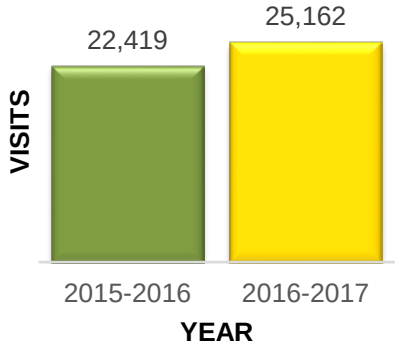
Objective: Build the capacity of Commonwealth Home Support Programme providers to deliver entry-level community aged care services.

Deliverable	Timeframes	Measures of success
		• Consumer Factsheet: How can colours support movement of people with ageing eyes or impaired sight? 2nd ed. • Industry Factsheet: Slip resistance of ramps 2nd ed. • Consumer Factsheet: Slip resistant floor surfaces • DIYmodify Factsheet: Accessibility • DIYmodify Factsheet: Choices for grab rails • DIYmodify Factsheet: Choices for handheld showers • DIYmodify Factsheet: Choices for handrails • DIYmodify Factsheet: Electrical zones in the bathroom • DIYmodify Factsheet: Home Modification quotes • DIYmodify Factsheet: Home Modifications in rental and strata title properties • DIYmodify Factsheet: Skills needed: Angled grab rail • DIYmodify Factsheet: Skills needed: Concrete ramp • DIYmodify Factsheet: Skills needed: Drop down grab rail • DIYmodify Factsheet: Skills needed: Floor mounted handrail • DIYmodify Factsheet: Skills needed: Hob and infill • DIYmodify Factsheet: Skills needed: Metal ramp • DIYmodify Factsheet: Skills needed: Rubber ramp • DIYmodify Factsheet: Skills needed: Shower head on a flexible hose • DIYmodify Factsheet: Skills needed: Shower head on a sliding bar • DIYmodify Factsheet: Skills needed: Step down shower • DIYmodify Factsheet: Skills needed: Straight grab rail • DIYmodify Factsheet: Skills needed: Timber ramp • DIYmodify Factsheet: Skills needed: Wall mounted handrail

ACTIVITY DELIVERABLES

Objective: Build the capacity of Commonwealth Home Support Programme providers to deliver entry-level community aged care services.

Deliverable	Timeframes	Measures of success
		• DIYmodify Factsheet: Slip resistance
Maintain HMinfo website to current standards	Ongoing	HMinfo website available 24/7 • Increase in website visits: 12% (2015-16 = 22,419; 2016-17 = 25,162)

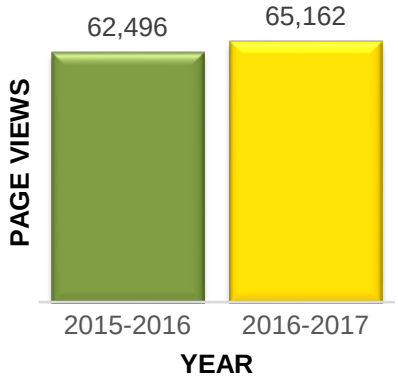


• Increase in total page views: 4% (2015-16 = 62,496; 2016-17 = 65,162)

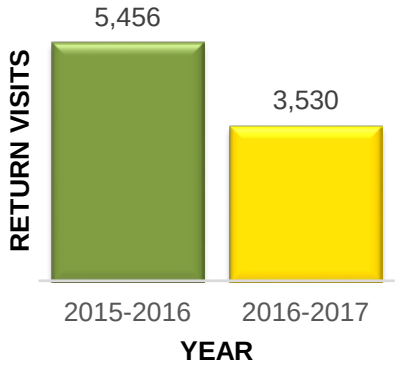
ACTIVITY DELIVERABLES

Objective: Build the capacity of Commonwealth Home Support Programme providers to deliver entry-level community aged care services.

Deliverable	Timeframes	Measures of success



- Increase in returning visitors: -35% (2015-16 = 5,456; 2016-17 = 3,530)



ACTIVITY DELIVERABLES

Objective: Build the capacity of Commonwealth Home Support Programme providers to deliver entry-level community aged care services.

Deliverable	Timeframes	Measures of success
		• Increase in contacts from social media by type: o LinkedIn: 40% (2015-16 = 447 connections; 2016-17 = 624 connections) o Facebook: -4% (2015-16 = 68 friends; 2016-17 = 65 friends) o Twitter - tweets: 7% (2015-16 = 983 tweets; 2016-17 = 1054 tweets) - followers: 16% (2015-16 = 194 followers; 2016-17 = 225 followers) o Pinterest - boards: 0% (2015-16 = 8 boards; 2016-17 = 8 boards) - pins: 0% (2015-16 = 45 pins; 2016-17 = 45 pins) o YouTube: 0% (2015-16 = 6 videos; 2016-17 = 6 videos)
Publish new and updated research relevant to home modifications and enabling environments for older people	Ongoing	HMinfo Publication Plan for 2016-2017 reviewed, and approved by Advisory Committee at the June 2016 Advisory Committee meeting. 28 HMinfo publications during 2016-2017

ACTIVITY DELIVERABLES

Objective: Provide guidance to stakeholders consistent with the Commonwealth Home Support Programme to support the transition of service providers and access to aged care services.

Deliverable	Timeframes	Measures of success
Continue requesting that HMinfo be listed on MyAgedCare to facilitate access to evidence-based information on home modifications for RAS assessors and CHSP service providers	6 months	HMinfo requested to be listed on MyAgedCare (request sent on 1 September 2015, followed up on the 7 October 2015, and 9th of December 2015 but no response to date)
Publish HMinfo quarterly newsletters	Ongoing	• Quarterly newsletters published on time: 4 • No of downloads of newsletters from website: 311
Work with MOD.A, OT Australia and ILCA to promote crosslinks between websites and facilitate access to home modifications evidence-base	Ongoing	Maintain MOU with MOD.A, no current MOU with OTA. Maintain liaison with ATA and individual ILCA members until they have a national body.
Enhance knowledge of home modifications for Home Modification Group Forums for allied health and building practitioners.	Ongoing	• Maintain Forums: 3 Total Traffic: 135 Total Threads Generated: 69 Total Threads Maintained: 69 • New Website Registrations: 103 • Total Website Registrations: 1806 • Total Content Downloads: 33519 • Total Content Reads: 564,783 • Number of registered individual OTs (listserv): 643
Ensure government, industry and consumer stakeholders on HMinfo Advisory Committee reflect a national focus	Ongoing	DoH nominate a relevant representative to the HMinfo Advisory Committee to ensure that a Commonwealth government perspective is incorporated into all HMinfo considerations HMinfo Advisory Committee is broadly representative of industry and consumer stakeholders.

ACTIVITY DELIVERABLES

Objective: Provide guidance to stakeholders consistent with the Commonwealth Home Support Programme to support the transition of service providers and access to aged care services.

Deliverable	Timeframes	Measures of success
Maintain existing links with research stakeholders and develop new ones as appropriate		10 papers/seminars/posters etc. delivered at 9 conferences/seminars/forums • 1 paper at Expert Scientific Meeting on load Distribution Measurement, July 2016, Lisbon, Portugal • Participation in seminar at Life When Renting Project, August 2016, Sydney, Australia • 1 paper at Universal Design 2016: Learning from the past, designing for the future. Proceedings of the 3rd International Conference on Universal Design (UD 2016), August 2016, York, United Kingdom. • 1 paper at the Older Peoples Housing Summit - Housing Choices, Decision Tools and Their Importance for the Ageing Population, September 2016, Wellington, New Zealand. • Participation at Low Carbon Built Environment Knowledge Hub project, October 2016, Melbourne, Australia • 1 paper at the 6th International Conference for Universal Design in Nagoya 2016: Creating Shared Value through Universal Design, December 2016, Nagoya, Japan. • 1 paper at the International Symposium on Housing Requirements for Ageing Community, January 2017, Seoul, South Korea. • Participation in Research Seminar: Creating a Vision of a Universally Designed Metropolis: Towards the 2020 Tokyo Olympic and Paralympic Games, April 2017, Sydney, Australia • 1 paper at Community Housing Providers – Building Liveable and Affordable Homes Seminar, May 2017, Auckland, New Zealand. • Participation at VIVID 2017 Ideation Session: Creating sensory rich experiences for all children, including those with special needs, June 2017, Sydney, Australia

STAKEHOLDERS		
Stakeholder	**Interest or Impact**	**Engagement Strategy**
RAS Assessors	RAS Assessors require access to evidence-based home modification information to support clients to make informed decisions about home modifications to maintain or restore independence and self-care.	Continued to ask DoH for access to the contact list for RAS Assessors, so that HMinfo can work with them to identify their information needs and ensure that HMinfo is responding to them. RAS Assessors unaware of the information that is available to support informed decision making around home modification.
MyAgedCare	HMinfo Needs to be relisted on the MyAgedCare database so that RAS assessors, OTs, home modification providers and other relevant parties can access information about HMinfo and the information and support it can provide	Continued to ask DoH for HMinfo to be reposted on MyAgedCare so that service providers and others can find HMinfo and use its services.
Home modification providers	Home modification providers require access to evidence-based home modification information in order to support clients to make informed decisions about home modifications to maintain or restore independence and self care.	Continued working with MOD.A, the industry body for home modification providers. Maintained reciprocal weblinks with MOD.A Maintained building practitioners Forum on HMinfo website
Occupational therapists	Home modification providers require access to evidence-based home modification information in order to support clients to make informed decisions about home modifications to maintain or restore independence and self care.	Unable to establish reciprocal weblinks with OTA: Link from HMinfo to OTA, but no link from OTA to HMinfo. Maintained OT Forum on HMinfo website
Other researchers in how home environments impact independence, self care and ongoing care costs of older people	Work with other researchers in the area of home modifications and how they support older people to maintain/restore independence and self care and reduce ongoing care costs	Maintained links with relevant researchers national and internationally: See research panel list at http://www.homemods.info/about-us/specialist-review-panels Present HMinfo and related research at relevant conferences and seminars: 6

3.3 HMinfo Activities 2016/2017

3.3.1 Research & Publications

HMinfo Publications

Barlow, G. & Bridge, C. (2017). *DIYmodify Factsheet: Accessibility*. Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

Barlow, G. & Bridge, C. (2017). *DIYmodify Factsheet: Choices for grab rails.* Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

Barlow, G. & Bridge, C. (2017). *DIYmodify Factsheet: Choices for handheld showers.* Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

Barlow, G. & Bridge, C. (2017). *DIYmodify Factsheet: Choices for handrails.* Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

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Barlow, G. & Bridge, C. (2017). *DIYmodify Factsheet: Skills needed: Concrete ramp.* Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

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Barlow, G. & Bridge, C. (2017). *DIYmodify Factsheet: Skills needed: Rubber ramp.* Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

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Lukman, A., & Bridge, C. (2017). *Consumer Factsheet: How can colours support movement of people with ageing eyes or impaired sight?* (2nd ed.). Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

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Lukman, A., Bridge, C & Quinn, J. (2016) *Evidence Based Practice Review: Use of Colour for Safe Movement* (2nd ed.). Sydney, Australia: Home Modification Information Clearinghouse, UNSW Australia. www.homemods.info

Quinn, J. (2017). *Consumer Factsheet: Slip resistant floor surfaces*. Sydney, Australia: Home Modification Information Clearinghouse, UNSW Sydney. www.homemods.info

Quinn, J. & Bridge, C. (2016). Industry Factsheet: Slip resistance of ramps (2nd ed.). Sydney. Australia: Home Modification Information Clearinghouse, UNSW Australia. www.homemods.info

Book Chapters

Bridge, C., & Carnemolla, P. K. (2017). Home Modification. In M. Curtin, M. Egan and J. Adams (Eds.), *Occupational therapy for people experiencing illness, injury or impairment: Promoting occupation and participation* (7th ed., pp. 690-705). Edinburgh: Elselvier.

Journal Articles

Carnemolla, P. K., & Bridge, C. (2016). Accessible Housing and Health-Related Quality of Life. International Journal of Architectural Research, 10(2). 38-50. http://www.archnet-ijar.net/index.php/IJAR/article/view/977/pdf

Bridge, C. Shuk, T & Sweatman, P. (2016) Asymmetric transfer force in sit to stand of healthy older people at different toilet heights. Proceedings of the Expert Scientific Meeting on Load Distribution Measurement July 27-30, 2016, University of Lisbon, Portugal p 45

Conference Papers and Presentations

Bridge, C. (2016, September). *Housing Choices, Decision Tools and Their Importance for the Ageing Population*. Keynote presentation at the Older Peoples Housing Summit - Housing Choices, Decision Tools and Their Importance for the Ageing Population, 5th September 2016. Wellington, New Zealand.

Bridge, C. (2017, January). *Accessible housing for older Australians: Identifying barriers to ageing in place versus home modification effectiveness evidence*. Keynote presentation at the *International Symposium on Housing Requirements for Ageing Community*. Seoul, South Korea.

Bridge, C. (2017, May). Effectiveness evidence for housing retrofit for older Australians:. Paper presented at *Community Housing Providers – Building Liveable and Affordable Homes Seminar, 9th May 2017*. Auckland, New Zealand.

Bridge, C. E., & Barlow, G. (2016). *Co-design of point of sale resources for 'Do It Yourself' (DIY) home modification*. In *Proceedings of the 6th International Conference for Universal Design in Nagoya 2016: Creating Shared Value through Universal Design.* [CD-ROM]. Nagoya, Japan: International Association for Universal Design

Bridge, C., Demirbilek, O. & Mintzes, A. (2016). Transforming inclusion: Designing in the experience of greater technological possibility. In H. Petrie, J. Darzentas, T. Walsh, D. Swallow, L. Sandoval, A. Lewis, & C. Power (Eds.), *Universal Design 2016: Learning from the past, designing for the future. Proceedings of the 3rd International Conference on Universal Design (UD 2016), York, United Kingdom, August 21–24, 2016*. (pp. 143-152). York, United Kingdom: IOS Press. doi:10.3233/978-1-61499-684-2-143.

Bridge, C., Tong, S.Y. & Sweatman, P. (2016, July) Asymmetric transfer force in sit-to-stand of healthy older people at different toilet heights. Paper presented at the *Expert Scientific Meeting on Load Distribution Measurement*, Lisbon, Portugal. Abstract retrieved from http://www.esm2016.de/files/ESM2016_proceedings.pdf

3.3.2 Reviewer & Assessor Roles

Assoc. Prof. Catherine Bridge

- Invitation to Review for the *Journal of Indoor and Built Environment*
- Invitation to Review for the *Australasian Journal on Ageing*
- Scientific Reviewer for the Journal Universal Design Built Environment, Volume 2, Issue 2, 2016

- Scientific Paper Reviewer for the *6th International Conference for Universal Design in Nagoya,* December 2016, Nagoya, Japan
- Abstract Reviewer for the *21st IAGG World Congress of Gerontology and Geriatrics,* July 2017, San Francisco, California

3.3.3 Teaching - Convened Courses

Assoc. Prof. Catherine Bridge

- 2016 ARCH1481 Critical Review of Literature
- 2017 ARCH1482 Research Methods
- 2017 ARCH1496 Honours Research Thesis 2

3.3.4 Research Student Supervision

Assoc. Prof. Catherine Bridge

Primary Supervisor:

- 2012-present: Peter Sweatman, candidate for PhD (UNSW) Built Environment
- 2013-present: Aldyfra Lukman, candidate for PhD (UNSW) Built Environment
- 2017-present: Sima Soha, candidate for PhD (UNSW) Built Environment

3.3.5 FBE & UNSW Committees & Roles

Assoc. Prof. Catherine Bridge

- Appointed to *UNSW Built Environment Faculty Leadership* - Associate Dean of Research
- BE Faculty representative for the *UNSW 2016 Associate Professor Promotion Round*.
- Invited Member of the *UNSW Disability Advisory Champions Group*
- Foundational Member of the *UNSW Strategic Initiative for a Disability Studies Institute (DSI)*.
- Invited Faculty Research presentation for potential collaborator on the Torch innovation precinct

3.3.6 External Committees & Roles

Assoc. Prof. Catherine Bridge

- Invited to participate in *Life When Renting Project,* one of seven projects funded under New Zealand's Ageing Well National Science Challenge. First Project Workshop attended 1 and 2 August 2016.
- Member of Steering Committee for the *Low Carbon Built Environment Knowledge Hub project* in partnership with Australian Policy Online (APO) and the Global Building Performance Network (GBPN). First Project Workshop attended 25 October 2016.
- Invited to participate in VIVID 2017 Ideation Session: Creating sensory rich experiences for all children, including those with special needs. Presented by Cushman & Wakefield. June 13, 2017
- Chair role for The Sydney Partnership for Health Education, Research and Enterprise (SPHERE), Clinical Academic Age and Ageing Stream - Environment and Assistive Technology Committee. Commenced May 2017.

3.3.7 In the Media

2016

Heaton, A. (2016, July 06). Are We Genuinely Engaging with Senior Australians in Urban Design? *Sourceable*. Retrieved from https://sourceable.net/genuinely-engaging-senior-australians-urban-design/

2017

Belardi, L. (2017, May 25). Consumer-friendly app launched to guide on home mods. *Community Care Review*. Retrieved from http://australianageingagenda.com.au/2017/05/25/consumer-friendly-app-launched-guide-home-mods/

Bridge, C. (2017, May 23). Discussion with Laura Tchilinguirian about Home Modifications on *Afternoons with Laura Tchilinguirian* [Audio Podcast]. Retrieved from URL: http://www.abc.net.au/radio/canberra/programs/afternoons/afternoons/8535678

DIYmodify app now available (2017, May 26) *COTA New South Wales – News.* Retrieved from http://www.cotansw.com.au/council-on-the-ageing-nsw-news-and-events-details/promotion-diy-modify-app

Duke, J. (2017, May 19). DIYmodify app designed to keep Australians in their homes and out of care for longer. *Domain.* Retrieved from https://www.domain.com.au/news/diymodify-app-designed-to-keep-australians-in-their-homes-and-out-of-care-for-longer-20170519-gw6iip/

Martin, K. (2017, July 4). New app for home modifications. *Freedon2live*. Retrieved from http://freedom2live.com.au/2017/07/04/new-app-for-home-modifications/#.WZUNJGepfnM

Modify your home: get the app. (2017, May 30) *The Senior*. Retrieved from http://www.thesenior.com.au/lifestyle/modify-your-home-get-the-app/

O'Neale (Ed.) (2017, July). Online Resources for NSW. *The Disability Trust*. Retrieved from http://www.disabilitytrust.org.au/uploads/41/july-2017nsw.pdf

Strachan, F. (2017, May 24). DIY app to help Australians stay in their homes longer. SBS. Retrieved from http://www.sbs.com.au/yourlanguage/sbs-serbian-serbian/en/article/2017/05/23/diy-app-help-australians-stay-their-homes-longer

Strachan, F. (2017, May 19). DIY app to help Australians stay in their homes longer. UNSW Sydney Newsroom. Retrieved from https://newsroom.unsw.edu.au/news/art-architecture-design/diy-app-help-australians-stay-their-homes-longer

Wilde, H (2017, July 13). Review of the DIYModify App. *DisCo: Disability Conversations*. Retrieved from http://discodisabilityconversations.blogspot.com.au/2017/07/review-of-diymodify-app.html

UNSW Launches DIY Home Modifications App (2017, May 22). PDCN News. Retrieved from https://www.pdcnsw.org.au/article/unsw-launches-diy-home-modifications-app/

website

SECTION 4

4 WEBSITE STATISTICS

4.1 Website Overview 2016-2017

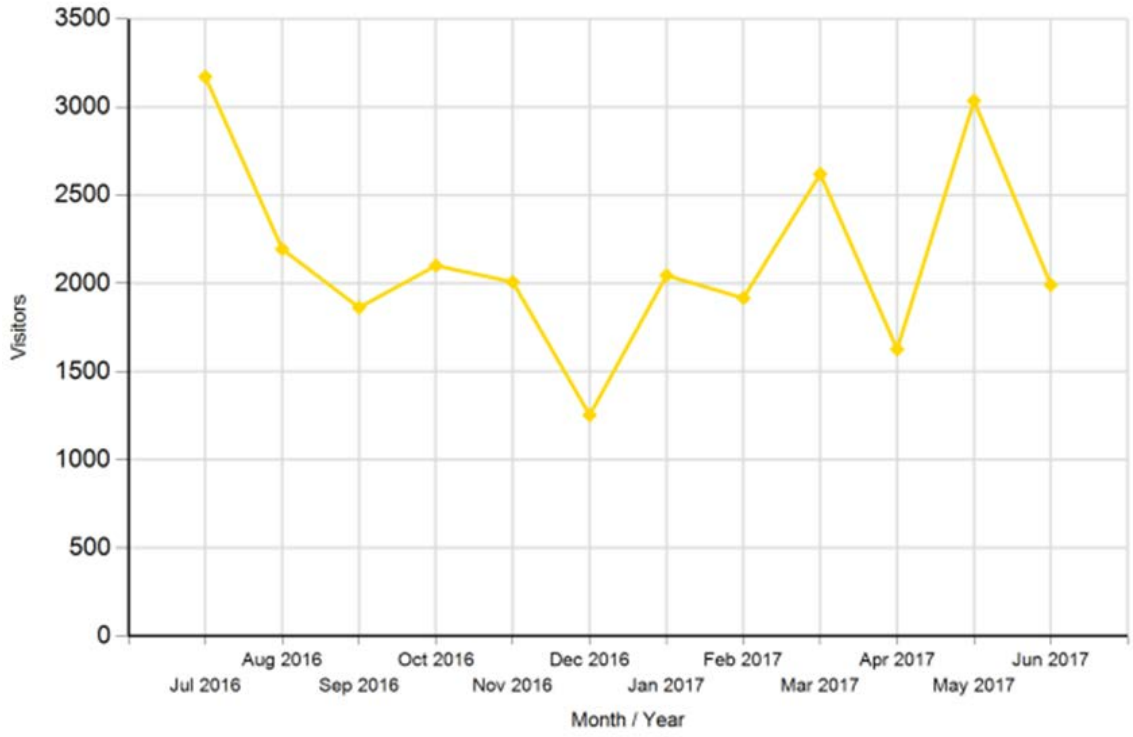
Total Page Views: 67,341

Total Visitors: 25,841

Total New Website Registrations: 103

4.2 Website and Google Analytics Reports

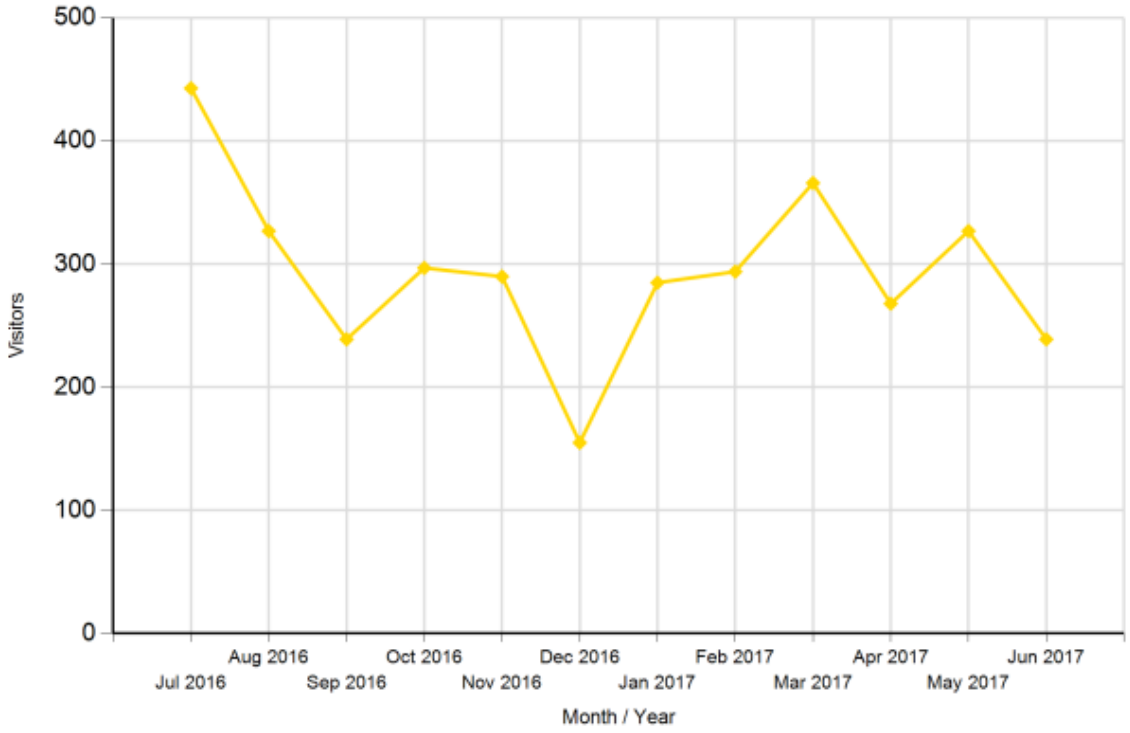
4.2.1 Visitors by month - 2016-2017 (graphical)



4.2.2 Visitors by month - 2016-2017 (table)

Month (year)	Visitors	Page views
July 2016	3,173	6,946
August 2016	2,196	5,152
September 2016	1,864	4,377
October 2016	2,102	4,902
November 2016	2,009	4,822
December 2016	1,254	3,152
January 2017	2,046	4,693
February 2017	1,918	4,963
March 2017	2,622	7,504
April 2017	1,627	5,059
May 2017	3,037	9,212
June 2017	1,993	6,559
Total	**25,841**	**67,341**

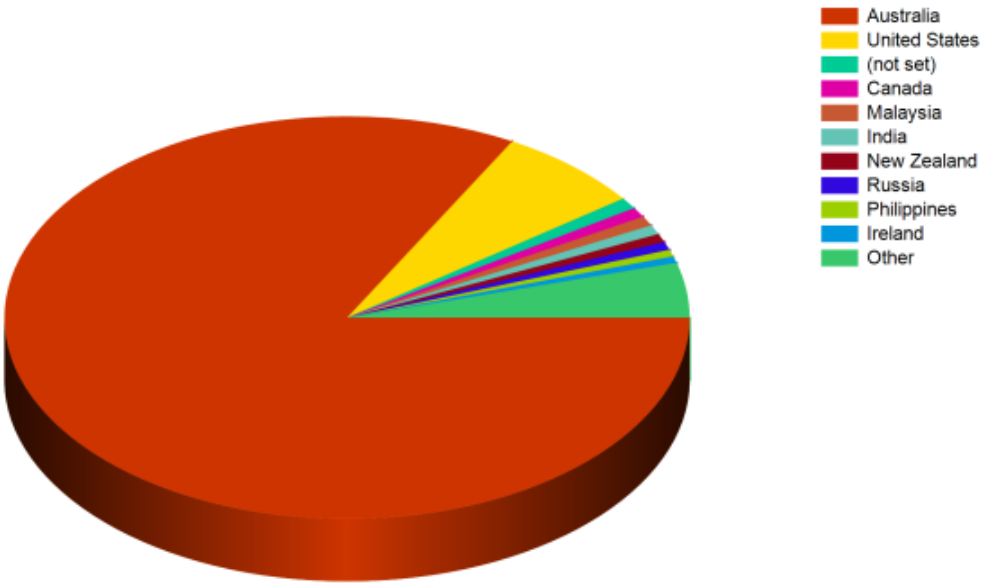
4.2.3 Visitors returning by month - 2016-2017 (graphical)



4.2.4 Visitors returning by month - 2016-2017 (table)

Month (year)	Number of returning visitors	% of Total returning visitors
July 2016	443	12.55
August 2016	327	9.26
September 2016	239	6.77
October 2016	297	8.41
November 2016	290	8.22
December 2016	155	4.39
January 2017	285	8.07
February 2017	294	8.33
March 2017	366	10.37
April 2017	268	7.59
May 2017	327	9.26
June 2017	239	6.77
Total	**3,530**	**99.99**

4.2.5 Visitors by country - 2016-2017 (graphical)

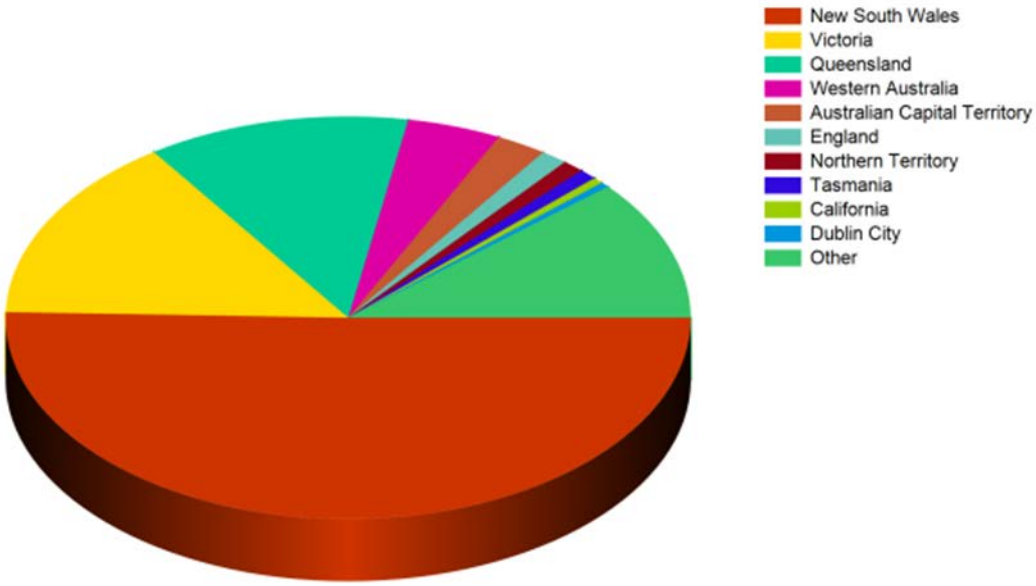


4.2.6 Visitors by country - 2016-2017 (top 10)

Country	Visits	% of Total Visitors
Australia	21,450	83.01
United States	1,785	6.91
(not set) [4]	236	0.91
Canada	204	0.79
Malaysia	204	0.79
India	198	0.77
New Zealand	173	0.67
Russia	173	0.67
Philippines	143	0.55
Ireland	136	0.53

[4] Visitor's country was hidden

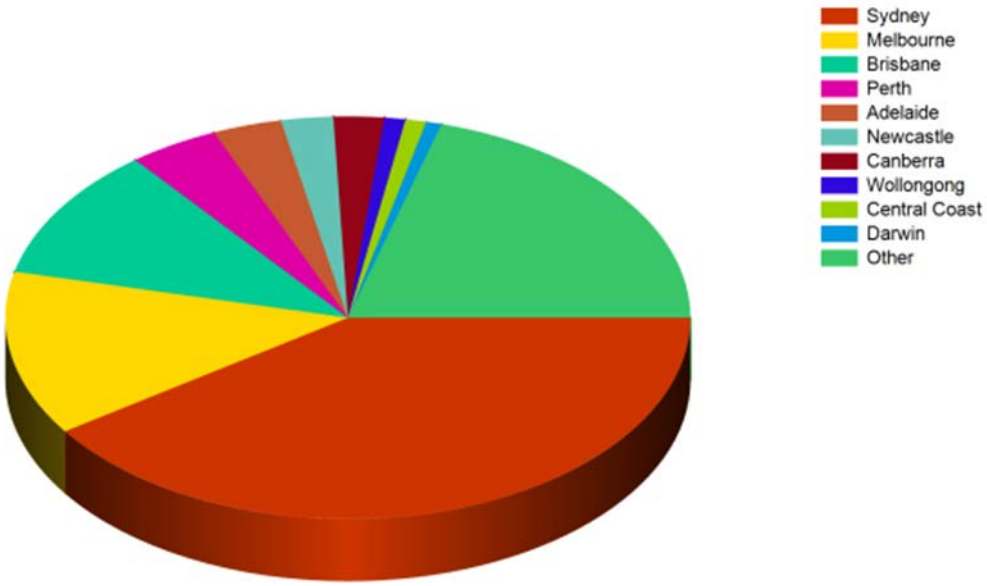
4.2.7 Visitors by region - 2016-2017 (graphical)



4.2.8 Visitors by region - 2016-2017 (top 10)

Region	Visits	% of Total Visitors
New South Wales	13,035	50.44
Victoria	3,863	14.95
Queensland	3,209	12.42
Western Australia	1,147	4.44
Australian Capital Territory	619	2.40
England	327	1.27
Northern Territory	264	1.02
Tasmania	221	0.86
California	128	0.50
Dublin City	110	0.43

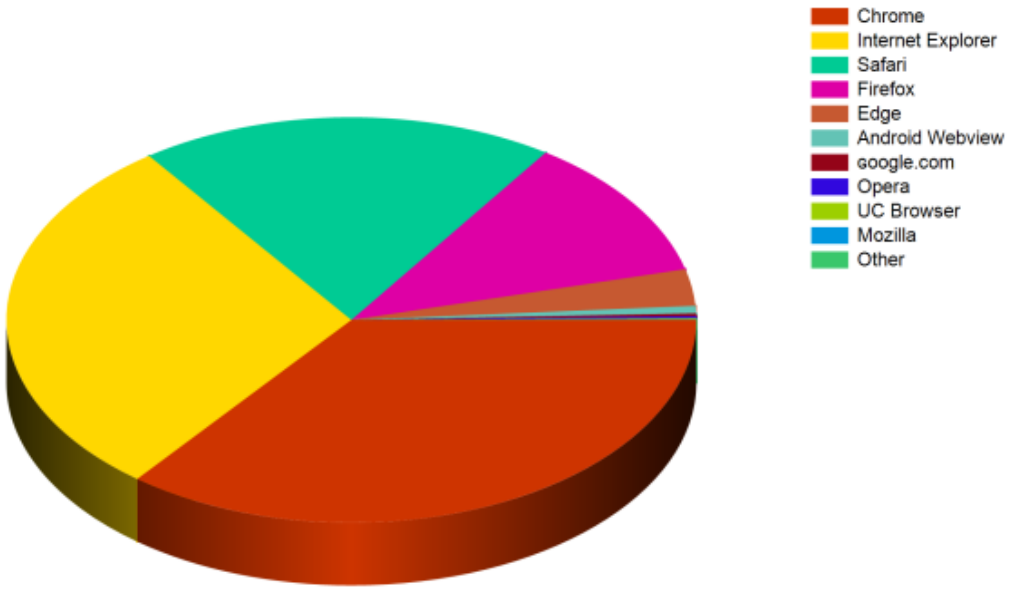
4.2.9 Visitors by city 2016-2017 (graphical)



4.2.10 Visitors by city - 2016-2017 (top 10)

City	Visits	% of Total
Sydney	10,373	40.46
Melbourne	3,389	13.22
Brisbane	2,733	10.66
Perth	1,093	4.26
Adelaide	836	3.26
Newcastle	631	2.46
Canberra	612	2.39
Wollongong	253	0.99
Central Coast	252	0.98
Darwin	188	0.73

4.2.11 Browsers used - 2016-2017 (graphical)



4.2.12 Browsers used - 2016-2017 (top 10)

Browser	Visits	% of Total
Chrome	9,214	35.66
Internet Explorer	7,588	29.36
Safari	5,041	19.51
FireFox	2,954	11.43
Edge	754	2.92
Android Webview	154	0.60
google.com	56	0.22
Opera	47	0.18
UC Browser	19	0.07
Mozilla	3	0.01

4.2.13 Google Analytics visits by country - 2016-2017

http://www.homemods.info
www.homemods.info

GO TO REPORT

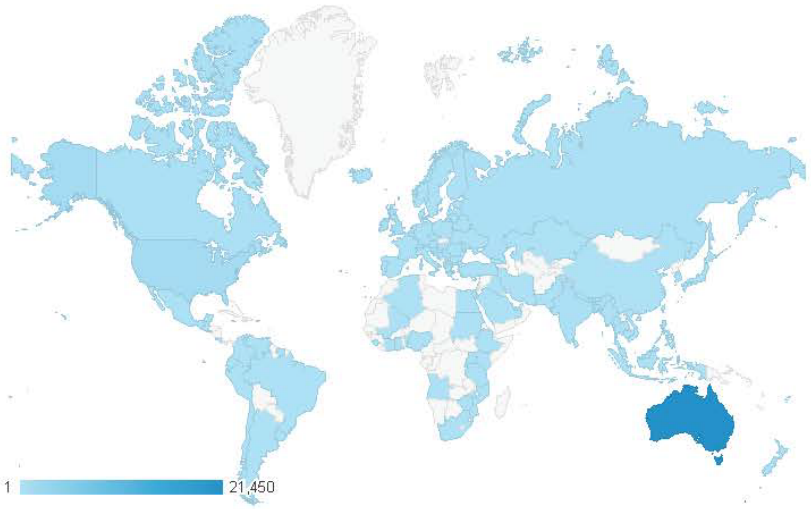
Location

All Users
100.00% Sessions

Jul 1, 2016 - Jun 30, 2017

Map Overlay

Summary



Country	Acquisition			Behavior			Conversions		
	Sessions	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
	25,841 % of Total: 100.00% (25,841)	62.70% Avg for View: 62.66% (0.06%)	16,202 % of Total: 100.06% (16,193)	60.26% Avg for View: 60.26% (0.00%)	2.61 Avg for View: 2.61 (0.00%)	00:02:12 Avg for View: 00:02:12 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	$0.00 % of Total: 0.00% ($0.00)
1. Australia	21,450 (83.01%)	58.36%	12,519 (77.27%)	58.04%	2.76	00:02:24	0.00%	0 (0.00%)	$0.00 (0.00%)
2. United States	1,180 (4.57%)	91.44%	1,079 (6.66%)	78.73%	1.66	00:00:53	0.00%	0 (0.00%)	$0.00 (0.00%)
3. United Kingdom	595 (2.30%)	92.44%	550 (3.39%)	68.19%	2.17	00:00:43	0.00%	0 (0.00%)	$0.00 (0.00%)
4. (not set)	236 (0.91%)	77.12%	182 (1.12%)	50.42%	2.39	00:01:19	0.00%	0 (0.00%)	$0.00 (0.00%)
5. Canada	204 (0.79%)	87.25%	178 (1.10%)	75.00%	1.74	00:01:13	0.00%	0 (0.00%)	$0.00 (0.00%)
6. Malaysia	204 (0.79%)	78.92%	161 (0.99%)	86.76%	1.26	00:01:00	0.00%	0 (0.00%)	$0.00 (0.00%)
7. India	198 (0.77%)	93.43%	185 (1.14%)	83.84%	1.33	00:00:34	0.00%	0 (0.00%)	$0.00 (0.00%)
8. New Zealand	173 (0.67%)	71.10%	123 (0.76%)	64.74%	2.40	00:01:21	0.00%	0 (0.00%)	$0.00 (0.00%)
9. Russia	173 (0.67%)	20.81%	36 (0.22%)	24.86%	1.92	00:04:14	0.00%	0 (0.00%)	$0.00 (0.00%)
10. Philippines	143 (0.55%)	81.82%	117 (0.72%)	64.34%	1.82	00:01:05	0.00%	0 (0.00%)	$0.00 (0.00%)

Rows 1 - 10 of 116

4.2.14 Google Analytics visits by city - 2016-2017

http://www.homemods.info
www.homemods.info

GO TO REPORT

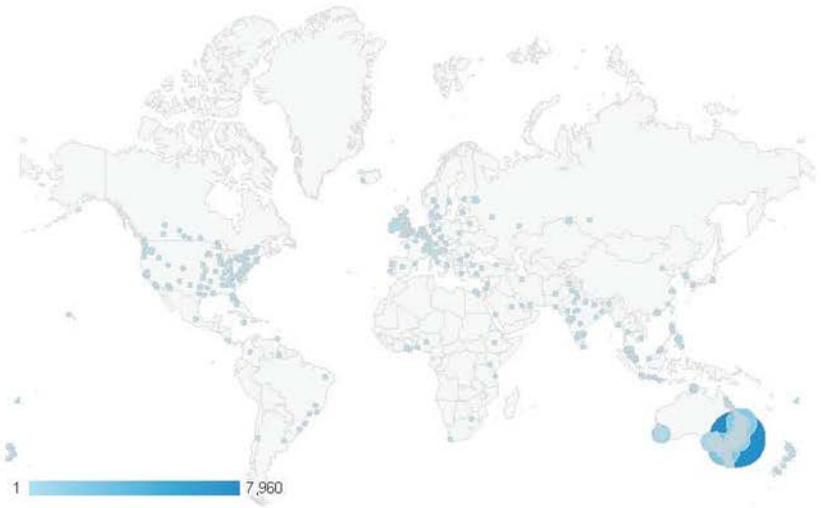
Location

All Users
100.00% Sessions

Jul 1, 2016 - Jun 30, 2017

Map Overlay

Summary



City	Acquisition			Behavior			Conversions		
	Sessions	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
	25,841 % of Total: 100.00% (25,841)	62.70% Avg for View: 62.66% (0.06%)	16,202 % of Total: 100.06% (16,193)	60.26% Avg for View: 60.26% (0.00%)	2.61 Avg for View: 2.61 (0.00%)	00:02:12 Avg for View: 00:02:12 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	$0.00 % of Total: 0.00% ($0.00)
1. Sydney	9,522 (36.85%)	57.37%	5,463 (33.72%)	54.60%	2.86	00:02:39	0.00%	0 (0.00%)	$0.00 (0.00%)
2. Melbourne	3,389 (13.11%)	62.02%	2,102 (12.97%)	63.23%	2.50	00:01:53	0.00%	0 (0.00%)	$0.00 (0.00%)
3. Brisbane	2,731 (10.57%)	58.55%	1,599 (9.87%)	63.90%	2.70	00:02:11	0.00%	0 (0.00%)	$0.00 (0.00%)
4. Perth	1,093 (4.23%)	63.49%	694 (4.28%)	62.76%	2.65	00:02:05	0.00%	0 (0.00%)	$0.00 (0.00%)
5. (not set)	851 (3.29%)	83.67%	712 (4.39%)	58.99%	2.22	00:01:08	0.00%	0 (0.00%)	$0.00 (0.00%)
6. Adelaide	836 (3.24%)	61.48%	514 (3.17%)	60.41%	2.54	00:02:17	0.00%	0 (0.00%)	$0.00 (0.00%)
7. Newcastle	625 (2.42%)	45.28%	283 (1.75%)	52.64%	2.88	00:02:35	0.00%	0 (0.00%)	$0.00 (0.00%)
8. Canberra	612 (2.37%)	59.64%	365 (2.25%)	54.08%	2.88	00:02:48	0.00%	0 (0.00%)	$0.00 (0.00%)
9. Wollongong	252 (0.98%)	49.60%	125 (0.77%)	56.35%	2.56	00:01:59	0.00%	0 (0.00%)	$0.00 (0.00%)
10. Central Coast	252 (0.98%)	69.84%	176 (1.09%)	54.76%	2.85	00:02:39	0.00%	0 (0.00%)	$0.00 (0.00%)

Rows 1 - 10 of 1251

4.2.15 Top 10 HMinfo Publication Reads - 2016-2017

Rank	Publication Title	Reads
1	Consumer Factsheet: Arranging Home Modifications	2505
2	Industry Factsheet: Slip Resistance of Ramps 2nd ed.	1892
3	Basic biomechanical and anatomical principles underpinning grabrail prescription for sit-to-stand transfers	1363
4	DIY Home Modifications: What information is required at point-of-sale? Final Report	1220
5	Summary Bulletin: Environmental Assessment & Modification for Australian Occupational Therapists	1206
6	Summary Bulletin: Fire Safety - Smoke Alarms 2nd ed	1157
7	Landscape Modification: an alternative to residential access ramps and lifts	1145
8	Orientation: Evidence Based Research: Effectiveness of Grabrail Orientations During the Sit-to-Stand Transfer	1132
9	Cost-benefit Analysis of Ramps versus Lifts	1061
10	Evidence Based Practice Review: Use of Colour for Safe Movement 2nd ed.	1050

4.2.16 Top 10 Publication Downloads - 2016-2017

Rank	Publication Title	Downloads
1	Summary Bulletin: Electrical Safety in Bathrooms 2nd ed.	1053
2	Industry Factsheet: Slip Resistance of Ramps 2nd ed.	1038
3	The Effectiveness of Ceiling Hoists in Transferring People with Disabilities - A systematic review	1003
4	Summary Bulletin: Fire Safety - Smoke Alarms 2nd ed.	975
5	Consumer Factsheet: Arranging Home Modifications	939
6	Summary Bulletin: Environmental Assessment & Modification for Australian Occupational Therapists	667
7	Cost-benefit Analysis of Ramps versus Lifts	588
8	DIY Home Modifications: What information is required at point-of-sale? Final Report	454
9	Basic biomechanical and anatomical principles underpinning grabrail prescription for sit-to-stand transfers	446
10	Consumer Bulletin: Showering over the bathroom floor drain	402

financial

REPORT – SECTION 5

5 FINANCE REPORT

5.1 DSS-DoH Financial Acquittal for the 2016-2017 period

DoH Financial Acquittal for the 2016/17 period

24 October 2017

Financial Acquittal for the 2016/17 period

This is the acquittal statement for the Grant funds received from the Department of Health (DoH) under the Commonwealth Home Support Programme (CHSP).
The disclosures in this section have been taken from the UNSW Financial system.

DoH Schedule ID 4-20VWZKS (UNSW account RG152759)

Income: the Home Modification Information Clearinghouse (Activity 4-225MU6D) received recurrent funding of $191,020.20 for the financial year 2016/17.

Expenditure: the funds were spent on salaries for research associated staff and other direct research expenses including salaries for website maintenance, updates and improvements. A balance of $45,297.25 was not spent in 2016/17 due to the delayed processing of a DoH invoice. A carry- forward request will be submitted to the Department and this surplus will be utilised in full in the 2017/18 financial year.

I certify that accounting records are maintained in accordance with the University's accounting

policy and procedures, the Australian Accounting Standards, and the FP&A Act and requirements.

Name: Kieran McGeachie, CA
Title: Analyst - Budget & Management Reporting, Research Finance, UNSW.

5.2 ADHC Financial Acquittal for the 2016-2017 period

ADHC Financial Acquittal for the 2016/17 period

30 October 2017

Financial Acquittal for the 2016/17 period

The disclosures in this section have been taken from the UNSW Financial system and ADHC's acquittal summary statement.

FACS ID 17483 (UNSW account RG152265)

Income: the Home Modification Information Clearinghouse (ID 17483) received recurrent funding of $57,809.29 for the financial year 2016/17.

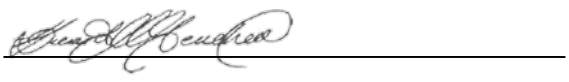
Expenditure: the funds were spent on salaries for research associated staff and consumables. The grant was fully expended in the financial year 2016/17.

FACS ID 34704 (UNSW account RG152265-A)

Income: the Home Modification Information Clearinghouse (ID 34704) received no funding for the financial year 2016/17. A balance of $250,461.57 was carried forward from the 2015/16 financial year.

Expenditure: the funds were spent on salaries for research associated staff and general overheads in the financial year 2016/17. The grant was fully expended in the financial year 2016/17.

I certify that accounting records are maintained in accordance with the University's accounting policy and procedures, the Australian Accounting Standards, and the FP&A Act and requirements.



Name: Kieran McGeachie CA

Title: Analyst – Budget & Management Reporting, Research Finance, UNSW.

looking ahead

SECTION 6

6 WHAT DOES THE FUTURE HOLD?

On our wish list apart from maintaining and further developing HMinfo, we hope to:

Develop a world class biomechanics laboratory

UNSW, Sydney has financed a new world class liveability lab in the basement of the Built Environment Faculty's home building. This new and enhanced facility which will come on line in early 2018 and will replace our much smaller existing lab. This larger facility and new staff will enable us to continue to explore and to better understand movement in three-dimensional space and forces related to movement, such as balance and stability for people with disabilities including a new project on washbasin clearances funded by GWA International.

Our research is a part of global research development regarding innovations in responsive design that is a key part of a 'smart city' and 'smart building'. The current liveability lab located in the Square House enabled us to gather data about the height, shape and movement patterns of older Australians, using this data we have established new norms and personas to better inform design for older people in Australia. To better understand the bathroom features that function well for older people and those that diminish their wellbeing, we have started to identify the requirements for bathroom configurations and fixtures that will reduce the risk of injury of older users, and establish baselines that will enable Industry to develop innovative care products for the future.

Develop new tools and methods to understand and verify wayfinding

We hope to continue the initial work undertaken on luminance, colour and other wayfinding aids to better understand the fundamentals of access within buildings. Dementia is the fastest growing functional limitation impacting wayfinding capability confirming the need for this condition to be factored in. The ease of wayfinding is currently evaluated using four approaches;

Real field testing

VR – Virtual Reality field testing with associated questionnaires

CAD Model analysis requiring 3D rendered visual information

Wayfinding based simulation – agent-based.

Accessibility metrics also include the other safety aspects of the route which need to be included as part of the design process. The challenge is to develop a metric that is relatively simple and could utilise a questionnaire / self-reporting approach, which would include a scaling factor. Alternatively, a simple virtual reality testing procedure linked to a three-dimensional digital Model would be appropriate. A reference building would make sense in this regard.

glossary

SECTION 7

7 GLOSSARY

ABCB	Australian Building Codes Board
ADHC	Ageing, Disability & Home Care
AHURI	Australian Housing and Urban Research Institute
CCSP	Community Care Support Program
CHSP	Commonwealth Home Support Programme
DOH	Australian Government Department of Health
DSS	Australian Government Department of Social Services
DVA	Department of Veteran's Affairs
EBEP	Enabling Built Environments Program
FaCS	NSW Department of Family and Community Services
HACC	Home & Community Care Program
HMinfo	Home Modification Information Clearinghouse
MOD.A	Home Modifications Australia
NCC	National Construction Code
NDIA	National Disability Insurance Agency
NDIS	National Disability Insurance Scheme
OT	Occupational Therapist
OTA	Occupational Therapy Australia is the professional association representing Occupational Therapy throughout Australia
PDCN	Physical Disability Council of NSW

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