

Tackling Ageing Continence through Theory, Tools and Technology (TACT3)

The story so far

Tackling Ageing Continence through Theory, Tools and Technology (TACT3) is a three-year consortium research project into age-related continence. Here Jo-Anne Bichard, Gail Knight and Catherine Greene explain the aims and scope of the project, and provide an update of the research so far

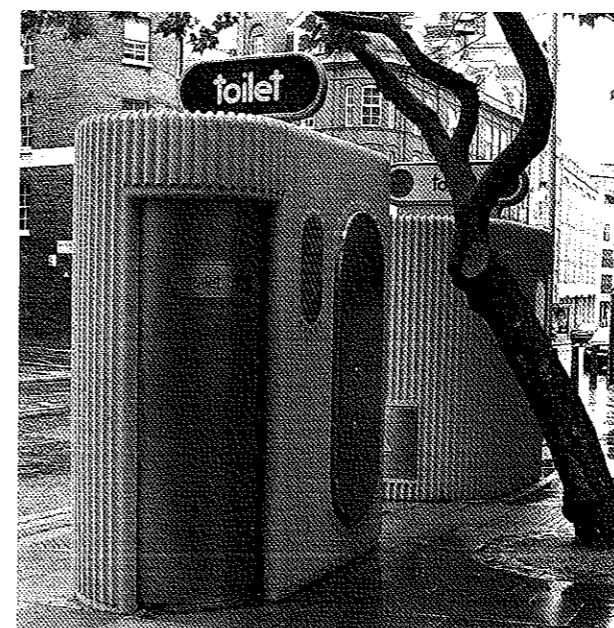
The design and provision of toilet facilities for disabled people have been covered in depth by the British Standard BS8300:2009 *Design of buildings and their approaches to meet the needs of disabled people – Code of practice* and Approved Document M of the Building Regulations, among other sources. However, previous research undertaken by Julienne Hanson and Jo-Anne Bichard highlighted that many older people do not feel 'entitled' to use the accessible toilet – see *Access By Design* issue 112 (Autumn 2007) – and therefore feel that neither the design or the provision of away-from-home toilet facilities currently meets their needs.

This issue of older people's access to toilet facilities is currently being addressed by research at the Royal College of Art (RCA) Helen Hamlyn Centre, which will focus on the environmental barriers many older people face when attempting to access a toilet away from home. This is one area of investigation in the wider consortium research project Tackling Ageing Continence through Theory Tools and Technology (TACT3), a three-year study into age related continence, lead by Brunel University's Institute of Bioengineering. The other projects in TACT3 involve developing assistive devices for continence management and investigating improved NHS services for those seeking advice and help with continence concerns. TACT3 is funded by the New Dynamics of Ageing programme, a collaborative research programme investigating the needs and issues of an ageing population, which is funded by all five of the UK's research councils.

Toilet provision for an ageing population

Besides dementia, nothing is more feared by many older people than incontinence. Urinary incontinence affects between 30 and 60 per cent of women over the age of 40, and around 15 to 30 per cent of men. Studies have shown that urinary function diminishes with age but this can be exacerbated by medication taken to counteract other chronic illnesses such as heart failure, some forms of cancer, Parkinson's disease and Alzheimer's disease. In addition, the ageing body may make physical mobility more difficult. This affects continence simply because an older person finds it harder to transfer on and off the toilet or even reach toilet facilities in time.

Due to toilet access difficulties, many older people have been known to limit the time and the distances that they are away from home. The ageing population in the UK continues to grow, yet Help The Aged has found that the number of available public toilet facilities has dramatically declined. Research suggests that this lack of access to toilets can severely limit people's daily quality of life and result in social isolation, including the avoidance of travelling to visit family and friends or going to work. The wider consequences of such access concerns are increased instances of low self-esteem, depression and loneliness, all of which draw on the resources of local health authorities and social services.



Credit J Bichard, TACT3

An example of the Automatic Public Convenience

Design innovation for toilet provision

Although the number of UK public toilets in use has decreased, there have been a number of innovative designs that attempt to address the issue of toilet provision for the public. The Automatic Public Convenience (APC) also known as the 'Superloo' or 'Tardis' began appearing on UK streets in the early 1990's, yet has not found favour with the public. In fact, Vivacity 2020 research undertaken by Hanson, Bichard and Greed found that many people would prefer to travel to the top floor of a department store then use an APC. In addition, among those

interviewed for the Vivacity research case study of areas in central London, no women over the age of 65 would use this design of toilet.

Another recent innovation, the Uri-Lift, seeks to address the requirements of evening toilet provision. This 'pop-up' urinal is raised by remote control at dusk and set back in the ground at dawn. Designed primarily to counteract the effects of street urination, including unsightly behaviour and environmental distress due to uric acid, the Uri-Lift has become a popular option among local authorities. However, the Uri-Lift and other temporary urinal solutions noticeably only address the needs of the male population. Even within this sector they fail to provide a toileting solution for men who have paruresis (shy bladder syndrome), men who observe faith and hygiene practices with regards to toileting, and older men who find such urinals unacceptably exposed.

Given that these innovations have not achieved full public preference and have therefore not met people's needs, especially those of the ageing population, the researchers at the RCA Helen Hamlyn Centre are investigating how provision can best be maximised to offer toileting facilities that are well-designed for hygiene, access, comfort and dignity and that will be welcomed by members of the public.

Challenging the barriers to toilet access for older people

To address the toileting needs of the ageing population, the first year of the RCA TACT3



Credit J Bichard, TACT3

An example of the nocturnal Uri-Lift 'pop-up' urinal

research has involved talking to users to understand what they find positive and negative about current provision. In year two, the research project will present these user insights to the providers of away-from-home toilets to understand the barriers they experience in providing facilities that users want. Finally, in year three, the research will consolidate the users' and providers' perspectives and experiences into design proposals.

Initially, the first phase of the project was only going to involve people over the age of 50, but we were advised and encouraged by the New Dynamic of Ageing's Older Peoples Reference Group to include the perspective of all ages in the research, as access to toilets is a lifelong concern. Subsequently, the researchers constructed a methodology that would include the toileting needs of those aged from one to 101 years. Telephone interviews were conducted with someone representing each year of age. Each interviewee was asked their age and gender, and whether they lived in an urban, suburban, town or rural area. This last question helped identify how provision can vary considerably from place to place and to consider solutions to overcome this issue. More importantly, as a user-centred inclusive design

project the researchers would focus the design solution on the areas of importance that users cited. We therefore asked interviewees to identify three main issues of concern that they felt should be addressed by the research.

Interviewees responded that they considered cleanliness of the facility to be their highest priority. One user summed up the issue as follows:

your confidence in the cleanliness comes from what it looks like on the outside and if you can see an attendant... if you can't see those things your confidence level starts dropping and you just don't want to go in there

It therefore became apparent that an important aspect of the design is for the toilet facility to be accessible not only to the user but also to those who maintain the facilities' hygiene.

The second most important issue for users was the information used to find a toilet facility. Many commented that signs often do not include distances to the facilities or are out of date, resulting in the discovery that the toilet facilities are closed or gone altogether. Other users commented that there was not enough information on the condition of the facilities;



Credit A Dodo, TACT3

RCA TACT3 Workshop for Design, December 2009

linking back to concerns about hygiene one user commented:

a map of the town ... might tell you where the toilets are but its not going to tell you what they're like

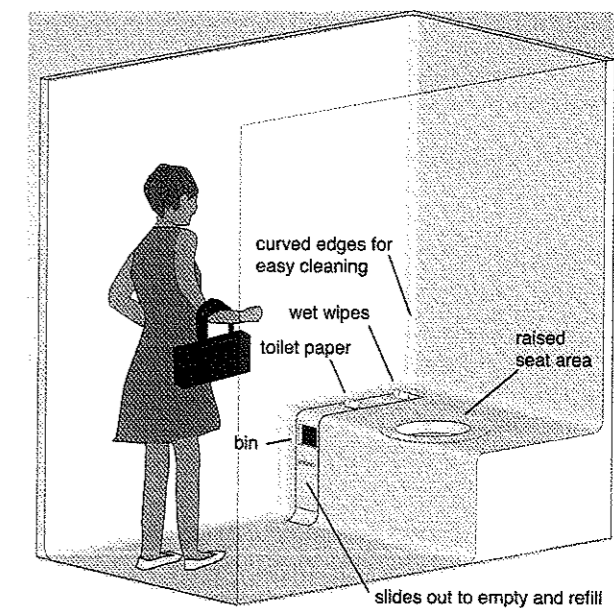
While there is an I-Phone application that includes a star rating and details of the condition of the facilities for London, nothing comparable exists so far on a nationwide scale. The scope of the project will therefore include an evaluation of solutions to address the lack of information about facilities.

The final area that users were most concerned about was the provision of facilities. Issues raised in this area included the perceived preference of providers for single-gendered provision, mixed-use facilities, and area-suitable provision such as community toilet schemes which may provide an adequate solution for rural and suburban areas, but are unsuitable for urban and town centres. To address these concerns the project will look at a range of design options for provision that include cubicle size, layout and access by mixed gender users such as partners, parents and carers of opposite genders.

Workshops for Design

As an initial response, the research team proposed a set of design concepts to present to users on the top three themes of hygiene, information and provision. These were then used as design provocations at a Workshop for Design held at the Royal College of Art in December 2009. The workshop allowed seven people who had participated in interviews to comment on and interact with the design provocations, identifying areas of increased user access or rejecting the provocations altogether.

In the area of hygiene these included the provision of personal packs, an attendant information profile and an easy-clean bench-style cubicle. The personal packs, containing toilet paper, hand wash, air freshener and antibacterial wipes, effectively made hygiene the responsibility of the user, but also gave the user confidence that they would have the items that they needed on hand. An attendant profile displayed within the toilet facility also acted to give a sense of security that there was someone around who was caring for the facility and who could be called upon in an emergency. The profile would replace current cleaning 'sign-in sheets' with which users had reported losing confidence as notification that cleanliness in the facilities was being



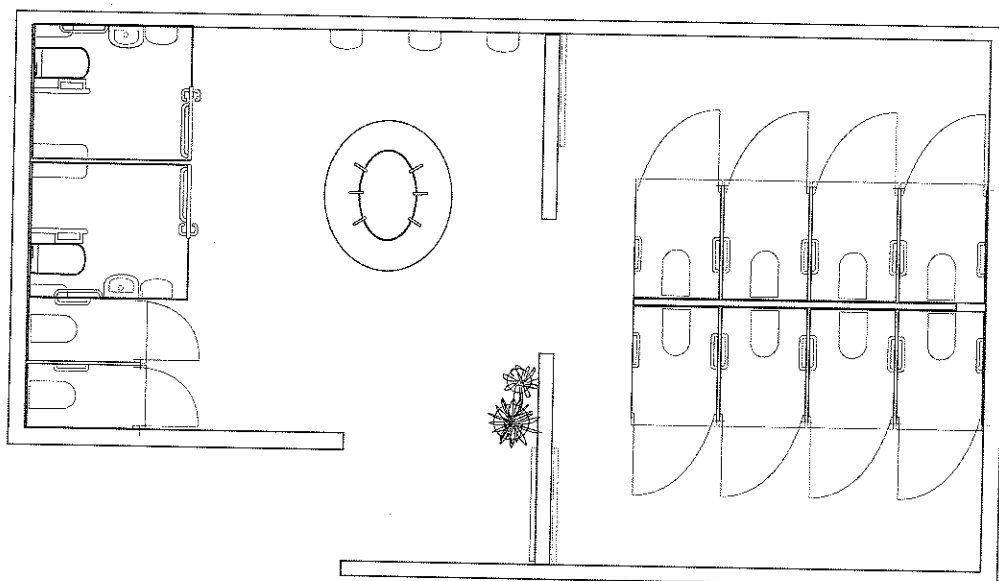
Credit G Knight, TACT3

The bench-style cubicle design

maintained. The attendant profile was felt to raise the profile of the work of the attendant as well as encourage a dialogue between users and caretakers of toilet facilities. Finally, the bench-style toilet cubicle, designed from an easy-to-clean perspective and to reduce clutter around the WC pan from bins, toilet roll holders and so on proved less popular due to concerns that items contained in the area around the WC pan would be less hygienic and therefore users would be unwilling to touch them.

Our second area of user concern regarded information on toilet facilities. These design concepts incorporated signage that included distances to toilet facilities, and a web page listing areas with toilets, which would be graded by users. The essential ingredient here is a form of joined-up thinking between local authorities to make toilet information 'universal' between areas and therefore easy to recognise and act upon.

The final area of user identified design intervention focused around the larger issue of provision of facilities. Many people throughout the age range we spoke with commented on how current gender-segregated provision causes distress for mothers with young sons and fathers caring for young daughters, as well as grandparents caring for grandchildren. This was especially prevalent for men who have become more active carers in society yet are often not catered for within facilities: for example, there is often no baby change provision within men's toilets.



Credit C Greene, TACT3

Facilities layout to include accessible and standard unisex and ambulant layout

The research presented a number of mixed-user layout options which the workshop participants felt were acceptable. These included unisex accessible cubicles, cubicles for children and standard male and female cubicles. However, the standard male and female facilities would include an increased cubicle width to accommodate an ambulant-style design that would be more accessible for older people. In the male area of the facilities there would no longer be urinals as many men avoid using them because they find such provision embarrassing, and/or for hygiene reasons.

Users also commented that as well as signifying that the facilities are clean they would like them to 'look nice' and felt that if the facilities looked cared for they would be in turn cared for by the users. One interviewee commented:

I think you'd respect it more ... I'd think I'm going to leave this toilet clean and tidy if I like the interior or if it's a nice place to go

Many of the people with whom we spoke cited department stores as the model of provision they would most like to see; this included rest areas as well as toilet facilities. Respondents reacted indifferently to commercial models which involved paying a larger entrance fee up to £1, while concepts that involved a toilet facility sharing space with another business such as a newsstand or a local authority information point were rejected as it was felt that no-one would really care for the facilities.

Presenting user preferences to the providers

TACT3 is now entering its second phase in which the user preferences will be presented to providers of toilets in the public and private sector, to help understand the challenges which currently prevent them providing users' preferred options. This design consultation phase will also incorporate consultation with attendants and cleansing service providers to assess the challenges they face in maintaining facilities. In 2011, the final year of the project, both users and providers will be brought together in workshops to comment on further design concepts, provocations and ultimately solutions that will incorporate the toileting needs of the UK's ageing population – namely everyone.

Further Reading:

Richard, Jo-Anne, Greed, Clara and Hanson, Julienne. *The Accessible Toilet Design Resource*

London: UCL, 2007.

<http://eprints.ucl.ac.uk/4847/>.

Lacey, Andrew. *Good Loo Design Guide*
London: Centre for Accessible Environments and RIBA Enterprises, 2004

Royal College of Art Helen Hamlyn Centre
www.hhc.rca.ac.uk

New Dynamics of Ageing Programme
www.newdynamics.group.shef.ac.uk