Can knowledge transfer strategies be developed to improve the uptake of inclusive design in housing?
Definition for Inclusive Design

The design of mainstream products and/or services that are accessible to, and usable by, as many people as reasonably possible with the widest range of abilities …. without the need for special adaptation or design.'

BS 7000-6 Managing Inclusive Design, 2005
...but what do we currently have to look forward to?
Traditional ‘Medicalised’ Model

Image by OT Kate Sheehan
Traditional approach
is design for special needs

Led by UK Building Regulations:
– Purely functional
– Format room layouts - Doc M packs
– Convenient for professionals
– High prices
– Stigmatising
Traditional ‘Medicalised’ Model of Home Adaptations

“Obliging people to have things they do not like, or about which they have reservations, may result in wholly wasted expenditure”

(Heywood F. ‘Money Well Spent’ 2001)
Research Findings

Age-related Limitations

• Bending & Stretching
• Hand & Wrist Dexterity
• Visual Acuity
• Safety

Inclusive Design Responses

• Adjustable-height wall-mounted products
• Lever operated taps & controls
• Colour contrast & controls at correct height
• Thermostatic Controls
• Slip Resistant Flooring
• Invisible layers of support
Inclusive Design
Inclusive Design

Design for Armitage Shanks 2005 with Occupational Therapist Kate Sheehan
Uses Mainstream Products

- Raised toilet
- Keeps floor clear for cleaning
- Makes small spaces feel larger
Both Part ‘M’ Compliant

Standard Doc ‘M’ Pack

‘Part M’ Compliant ‘Easy Access Cloakroom’
A Shift in Thinking

Design for Disability
by Impey UK

Inclusive design
by Impey UK
Same Price!

Bidet toilets
Lifetime Homes

How does inclusive design differ from Lifetime Homes (LTH)?

– LTH concept is architecturally inclusive
– Inclusive design encompasses LTH standards + interior fit-out + aesthetics
– LTH concept is for newly built homes
– ID concept applies to new & existing homes
DD 266:2007

• Design of Accessible Housing – Lifetime Homes – Code of Practice
  – Refers to residential housing more than commercial buildings
  – Refers to new or refurbished housing
  – More detail than LTH in areas such as lifts, stair lifts, sanitary, heating & ventilation, lighting, parking
DD 266:2007

- Visual Acuity
  - Switches, outlets & controls to contrast visually with surroundings
  - Visual contrast for lift signage & landing floor areas
• Bathrooms
  – Provision of access to hot & cold water supply to allow convenient future connection to a shower fitting i.e. not just a floor drain
  – Large WC flush handle or large push buttons that are easy to reach & light to operate
  – Ease of access WC & bathroom i.e. not just fully wheelchair accessible version
  – Clear bathroom space plans but lacking useful measurements
DD 266:2007

• Heating & Ventilation
  – Where modern methods of construction are used designers need to take into account building performance i.e. waterproofing, vapour control, thermal integrity was well as load-bearing capacity
  – Thermostat radiator controls to all rads.
  – Means of turning mains water on and off i.e. stop cock, should be readily accessible
Inclusive Design Housing Showcase 2006

Habinteg Housing Association
Westwood Park, Bradford
The Brief

• To create in-built flexibility to accommodate a wide range of future tenants, from families with young children, to older tenants and tenants using wheelchairs

• **Must** be maintenance friendly!
Methods Lab

Created in a 3000sq ft warehouse in Byley, Cheshire
User Trials

Testing research assumptions & new inclusive design ideas
Inclusive LTH Bathroom

• Integral drain creates wet room facility
• Bath panel with toe recess for carer
• Wheelchair accessible WC & basin
• Slip-resistant flooring

Decent Homes compliant, Wheelchair accessible

KBB Review Award Winner 2007
Inclusive LTH Bathroom

Traditional Bath for hoisting/caring

Bath seat with built-in toe recess along length of bath
Inclusive LTH Bathroom

- Wheelchair accessible WC
- Adjustable in height
- Easy push flush panel
- Moves away from language of ‘design for disability’
Inclusive LTH Bathroom

- Thermostatic control
- Lever controls
- Alternative showering positions both inside & outside bath
- Longer riser rail
- Controls within easy reach from seated position inside & outside bath
Inclusive LTH Wet Room

Green tile pattern denotes LTH wall knock-out panel to create ensuite bathroom for hoisting
Inclusive LTH Wet Room

- Wall-mounted lights for easy maintenance without use of step ladder
- Contemporary grab rails
It’s in the detail

• Solid walls require chrome plumbing

• Luminous light-pull for night time use
LTH WC/Shower
LTH Kitchen

Westwood Park, Bradford for Habinteg 2006

KBB Review Award Winner 2007
Inclusive Product Design
User Consultation & Testing
What is the UK Central Government doing?

Encouraging people to fund their own alterations/equipment to their own homes via

- Voucher schemes/direct payments
- Individual budgets
- Equity release
- Encouraging younger family members to support older relatives
What is the UK Central Government doing?

- Changing Social Care polices
- Disabled Facilities Grants - £250 million p.a. (up to £30k per person)
- VAT changes
- Lifetime Homes Lifetime Neighbourhoods by 2011/2013
- Decent Home standards for refurbishment
LTH Housing Strategy 2008

Lifetime Homes & Lifetime Neighbourhoods

Government Housing Strategy (Feb 2008)
Housing Strategy 2008

- Wall-mounted products
- Integral floor drain with coved skirting for wet-room floor
- Thermostatic shower
- Basin shelf & shower rails double as grab rails

‘Compact Wet Room’ designed for Living Works
Inclusive Design Inspiration

- Not design for disability
- Aspirational designs to suit all budgets
- Non-stigmatising
- Embedded support
- Balances function with aesthetics

‘Luxury Wet Room’ designed for Living Works
Occupational Therapists as Advisors

‘The College of Occupational Therapists is committed to client-centred practice and the involvement of the client as a partner in all stages of the therapeutic process

(College of Occupational Therapists, Code of Ethics and Professional Conduct 2005)

i.e. no longer budget holders for their LAs
Living Works Bathroom Range

• Choice to the Private Pay market
  - for older consumers themselves
  - for younger 50+ purchasing for older relatives

• Inspiration and training for Occupational Therapists

• Attractive, Building Regulations compliant solutions for architects, designers and housing developers
Luxury Wet Room

Wall-mounted products

- Variable height for taller & less able users
- Keeps floor clear from tripping objects
- Keeps the floor clear for cleaning
- Makes the room feel larger
Classic Shower Room

- Lever taps & shower controls
- Thermostatic controls
- Soft-push toilet flush
- Level or low-threshold shower trays
- Folding shower seat
Family Bathroom

- Bath-end seat for relaxation or transferring into the bath
- Flexibility - integral floor drain
- Wheelchair accessibility without the ‘language of disability’
Easy Access WC

- Building Regulation compliant
- Balena bidet toilet with automatic wash/dry facility & remote control
- Mat-finish tiles & good tonal balance between floor & walls for visual acuity
Contemporary Shower Room

• Low-rise shower tray

• Remote operation thermostatic shower control

• Wall-mounted accessories to reduce bending & reaching
Compact Wet Room

• Different sized room-sets to demonstrate realistic-home designs across a range of budgets

• Aspirational styling
Easy Access Shower

- New inspiration in traditionally challenging areas for Occupational Therapists

Award winning shower doors by Easa
Easy Fit Area

• Information
• Inspiration
• Communication
Professional Trials & Training

Consumer Focus Group Jan 2007

OT trials of showroom designs 2008
Cambridge University
Impairment Simulation Suit

- Understand
- Communicate
- Empathise
- Compare

Staff empathic training at Living Works, Eastbourne
Family bathroom

This bathroom has been designed for clients who may need to use a wheelchair by creating a level-access shower area with a floor drain in the middle. The design also meets the extended needs of other members of the household.

Family bathroom

This bathroom has been designed for clients who may need to use a wheelchair by creating a level-access shower area with a floor drain in the middle. The design also meets the extended needs of other members of the household.
Legislation Compliant ‘Boxed’ Solutions?

- Housing Associations
- Occupational Therapists
- Architect & Designers
- Contractor

- Added Value
- Compliant
- Quick
- Off the shelf

Kitchens

Legislation Compliant
Boxed Solutions
Occupational Therapist Approved

Bathrooms

Site
Inclusive Design Inspiration
Pennine Housing Association

Mytholm Meadows, Halifax, UK
Pennine Inclusive Design Group

Pennine

- Maintenance
- Architect

Contract ‘or similar’

Contractor

- Sub-Contractors
- Manufacturer

Pennine Care Staff

Occupational Therapist

Adaptation Agency

End User

Care Staff

Pennine
Pennine Design Group’s Mission Statement

- Introduce **inclusive design principles** throughout the scheme
- ‘**Home not hospital**’ focus improving overall interior design value
- Create an inclusive design ‘tool kit’ for future **quality control** and **knowledge transfer** between housing providers
‘Home’ not ‘Hospital’
Current construction practises can mean inclusive design can slip out of the design brief:

- **Client**
  - Inclusive Design Brief

- **Architect**
  - Inclusively Designed Building

- **Contract Wording**
  - ‘or similar’ phrase

- **Contractor**
  - Lack of ring-fencing for ID interior budget

- **Supplier**
  - ID unaware so offers ‘or similar’ products

- **Trades**
  - Fit products in usual way without reference to ID instructions
ID Group aims to control this process:

<table>
<thead>
<tr>
<th>Client</th>
<th>Inclusive Design Brief</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architect</td>
<td>Inclusively Designed Building</td>
</tr>
<tr>
<td>Contract Wording</td>
<td>‘or similar’ phrase</td>
</tr>
<tr>
<td>Contractor</td>
<td>ID product meeting</td>
</tr>
<tr>
<td>Supplier</td>
<td>Collaboration on ID kitchen design</td>
</tr>
<tr>
<td>Trades</td>
<td>ID instructions for fit-out to be prepared</td>
</tr>
</tbody>
</table>
Challenging Suppliers

- To reduce prices
- To develop new products
- Or at least new colours!

...or switch supplier!
New Inclusive Kitchen

- Chrome finishes
- Drawer storage to prevent leverage lifting
- Carousels in cupboards
- Lower cooking area with cooker hood with light
- Task lighting
- Higher standard sink & tap
- Tap to side

Joint design collaboration with kitchen supplier
Willow Court Show Flat
Willow Court Show Flat
The Way Forward

• ID Products specification within the contract
• Ring-fenced ID interior budget
• Further development of the inclusive kitchen as standard (challenge Housing Corporation Guidelines for kitchen storage)
• Design Guide to maintain design integrity & for knowledge transfer between housing providers
“Be the change you wish to see in the world…”

(Ghandi)