

*Thinking differently about healthcare buildings:
innovative infrastructure planning and design to improve
the quality and safety of care
EuHPN 2014, Edinburgh*

Improving Health and Social Care Environments for People with Dementia

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3rd October 2014

Aim of the presentation

Introduce the key principles of dementia friendly design,
in relation to the specific aspects of this age group
(i.e. senses, perceptions and cognitions)
to improve quality and safety in elderly patient's journey
through the health and social care environments.

Outline of the presentation

- Aim and context Context
- Age-related considerations
- Quality and Safety considerations
- DH Dementia Capital Programme
- Key principles of dementia friendly design
- Health and Social Care environments
- Conclusions and next steps

Context: Ageing population

- Ageing population is a global issue. By 2016 the number of people over 65 will outnumber the number of children under 5.

(WHO - National Institute on Aging - National Institutes of Health, Global health and ageing, 2011)

- Ageing population brings together a series of implications and co-morbidities.

(CSDH, Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health, 2008)

- The current cost of dementia for the UK economy is estimated on £23 billion a year.

(Alzheimer's Society, Dementia 2012: A national challenge, 2012)

Context: NHS built assets

- The NHS is one of the largest building landlords in the UK: its assets are worth £84 bn.

(Baillie, Young blood vital to sector's future, Health Estate Journal of the Institute of Healthcare Engineering and Estate Management, 2013)

- In England, approximately 22% of NHS acute hospital buildings pre-date 1948 and 25% of buildings were built between 1948 and 1974.

(Short et al, Building resilience to overheating into 1960's UK hospital buildings within the constraint of the national carbon reduction target: Adaptive strategies, in press)

- Age of the building can be used as a proxy for critical infrastructure backlog and building condition.

(Mills et al., Critical Infrastructure Risk in NHS England: Predicting the impact of building portfolio age, International Journal of Strategic Property Management, in press)

Context: Quality and safety

- In 2010, the DH set the target to save up to £20 billion by the year 2014, and reinvest them to improve quality and raise productivity through improvements in space utilisation.

(DH/NHS Finance Performance and Operations, The Operating Framework for the NHS in England 2011/2012, 2010)

- The Francis Report and the Keogh Review provided evidence and validation of quality and safety issues in the national infrastructures.

(Francis, Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry, 2013)

(Keogh, Review into the quality of care and treatment provided by 14 hospital trusts in England: overview report, 2013)

Context: DH Dementia Capital Programme

- Health and social care environments need to respond to ageing population and all its related conditions including dementia, to improve quality and safety in elderly patient's journey.

(Loughborough University Enterprise Ltd., IFF Research, Department of Health, DH Improving the environment of care for people with dementia - Internal Project Report, 2014)

- One such response has been the Department of Health England Capital Programme “Improving the environment of care for people with dementia”, the initial findings of which are presented here.

(Loughborough University Enterprise Ltd., IFF Research, Department of Health, DH Improving the environment of care for people with dementia - Internal Project Report, 2014)

Age-related considerations

Hearing, Sight,
Touch, Taste,
and Smell

Senses

Balance,
Reminiscence,
Action, and
Interaction

Cognitions

Sensory maps,
Kinaesthesia,
Temperature
and Pain

Perceptions

Quality and safety considerations

COST

Cost of design, planning, maintenance, refurbishment, upgrade, decommission and disposal of **health and social care infrastructure** and service provision.

CHANGE

*'Planning based on the idea that **operational regimes** are permanent must fail since all health buildings change constantly.'* (J. Weeks, 1973)

TIME

Pace of clinical, social, cultural, environmental, economic and technologic changes, which may vary across different countries (**timely interventions**).

SCALE

Scale refers equally to the scale of **service provision** (systems and operations) and to the scale of **setting** (local, regional, national and international).

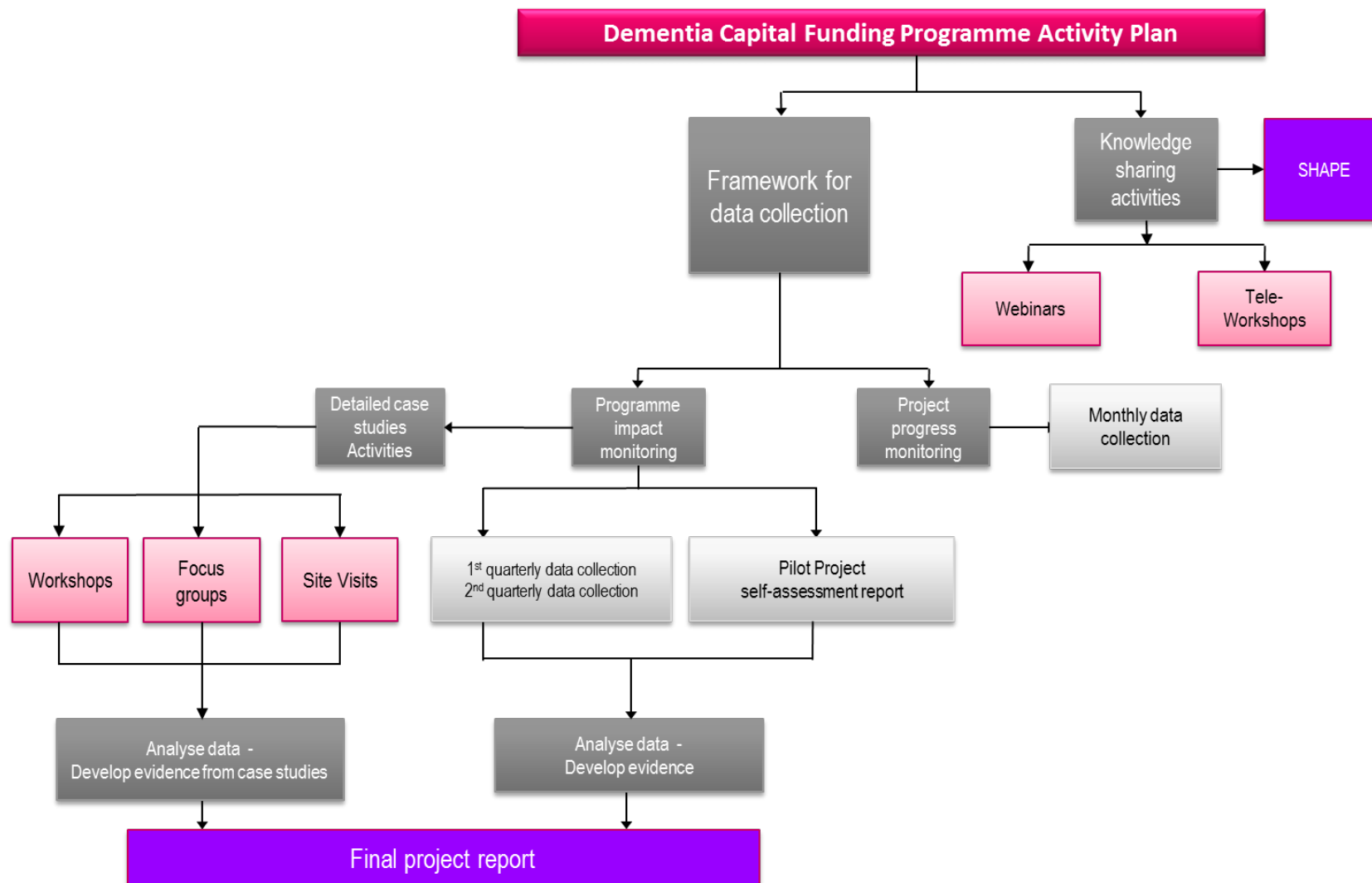
DH Dementia Capital Programme

This presentation draws on some aspects that are emerging from the Department of Health England National Programme:

“Improving the environment of care for people with dementia”.

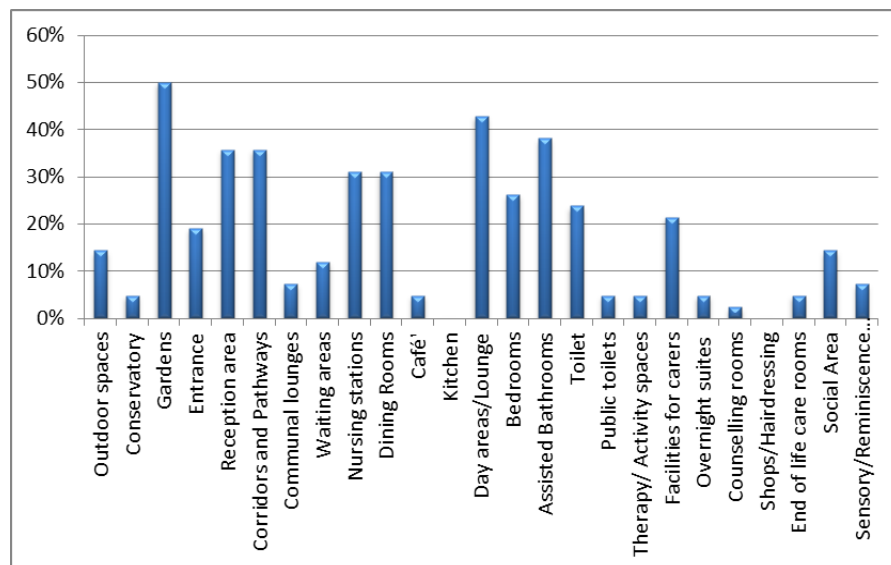
The DH Capital Programme has provided £50M capital funding for 116 NHS and Social Care pilot projects to develop evidence that will support the development of evidence-based design standards and guidance.

DH Dementia Capital Programme - Delivery plan



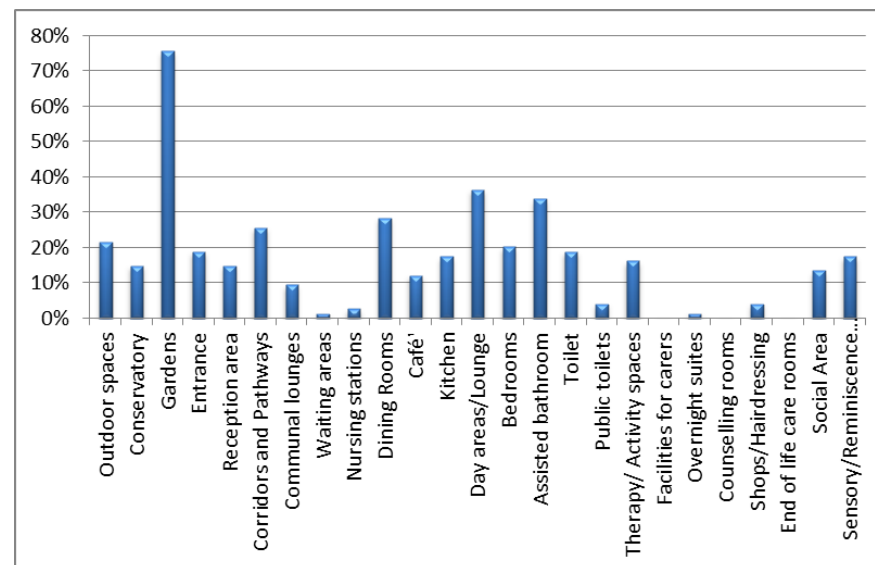
DH Dementia Capital Programme - Intervention type

NHS - Spaces in the built environment



- Gardens & Outdoor spaces
- Circulation spaces & Communal areas
- Nursing stations
- Areas for carers

SC - Spaces in the built environment



- Gardens & Outdoor spaces
- Circulation spaces & Communal areas
- Activity spaces
- Bedrooms

Key principles of dementia friendly design

1. Reduce safety risks (e.g. falls, aggressions, evacuation);
2. Provide a human non-institutional scale and environment;
3. Ensure good visual access (e.g. people, objects);
4. Promote orientation (e.g. time, day, location);
5. Support way-finding and navigation;
6. Promote respect, privacy and dignity;
7. Encourage movement and engagement;
8. Provide an optimum level of stimulation;
9. Encourage independence;
10. Support diet and nutrition;
11. Provide access to natural light;
12. Provide optimum lighting and contrast; and
13. Promote contact/communications with friends and relatives.

1. Reduce safety risks

- Use of matt, even coloured and homogeneous flooring



1. Reduce safety risks

- Use of handrails and rest areas



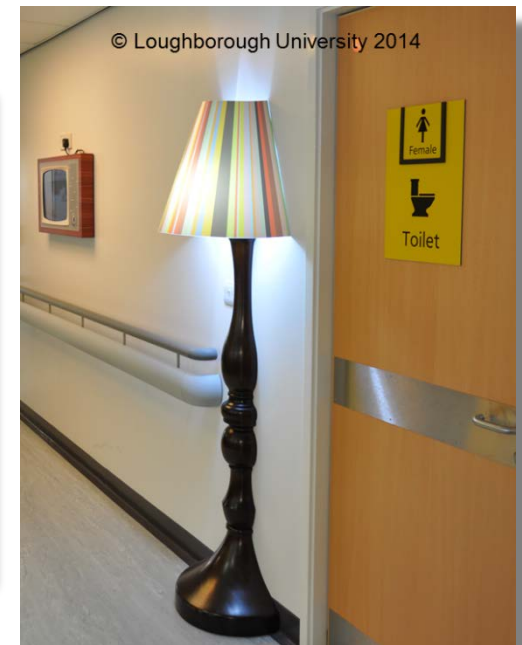
1. Reduce safety risks

- Use of appropriate lighting levels and de-clutter space



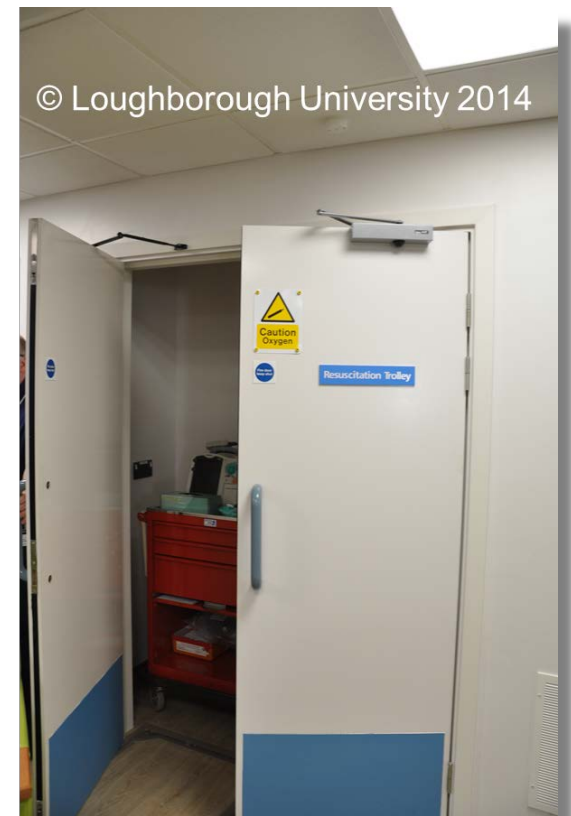
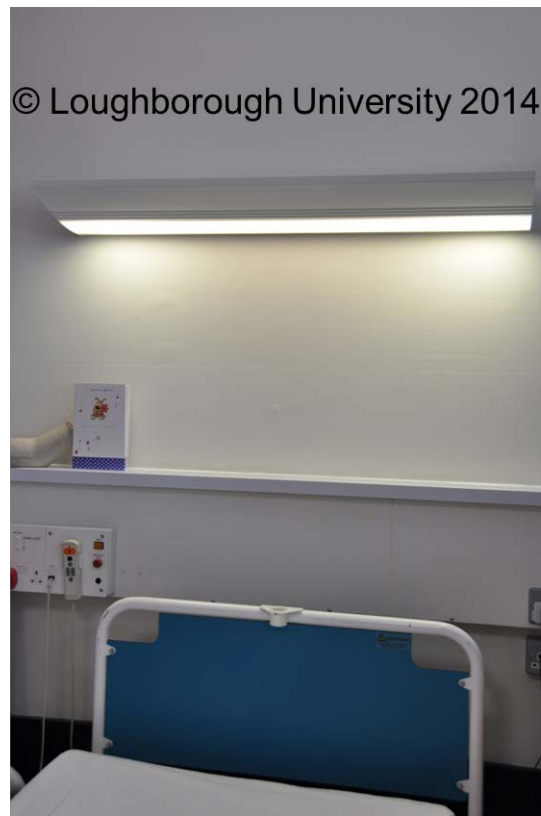
2. Provide a human non-institutional scale and environment

- Use of non-institutional furniture and fittings



2. Provide a human non-institutional scale and environment

- Disguise bed headboards and clinical equipment



3. Allow good visual access

- Use of glazed screens and see-through furniture



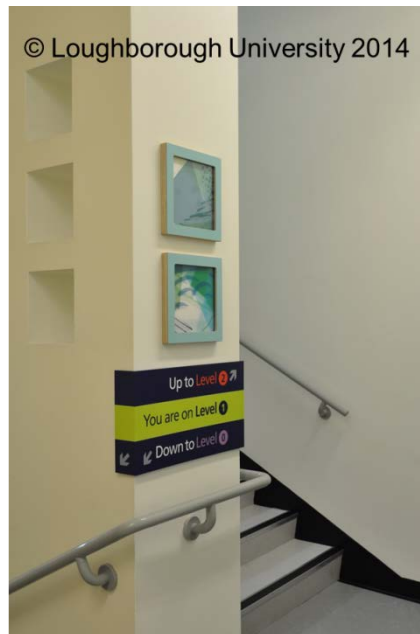
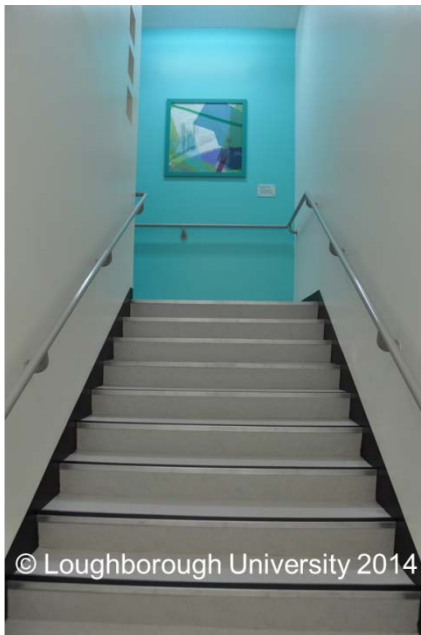
3. Allow good visual access

- Use of open plan and non-facing doors



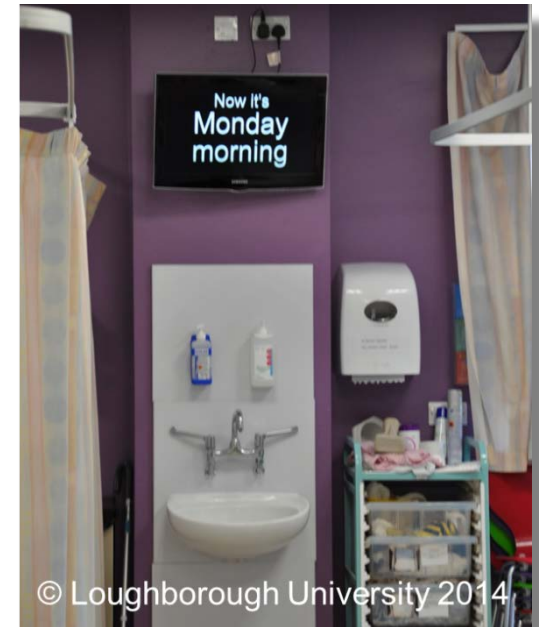
4. Promote orientation

- Use of visual clues and memory boxes



4. Promote orientation

- Use of calendars and large face clocks



4. Promote orientation

- Use of dynamic lighting



5. Support way-finding and navigation

- Use of detectable colour-coding



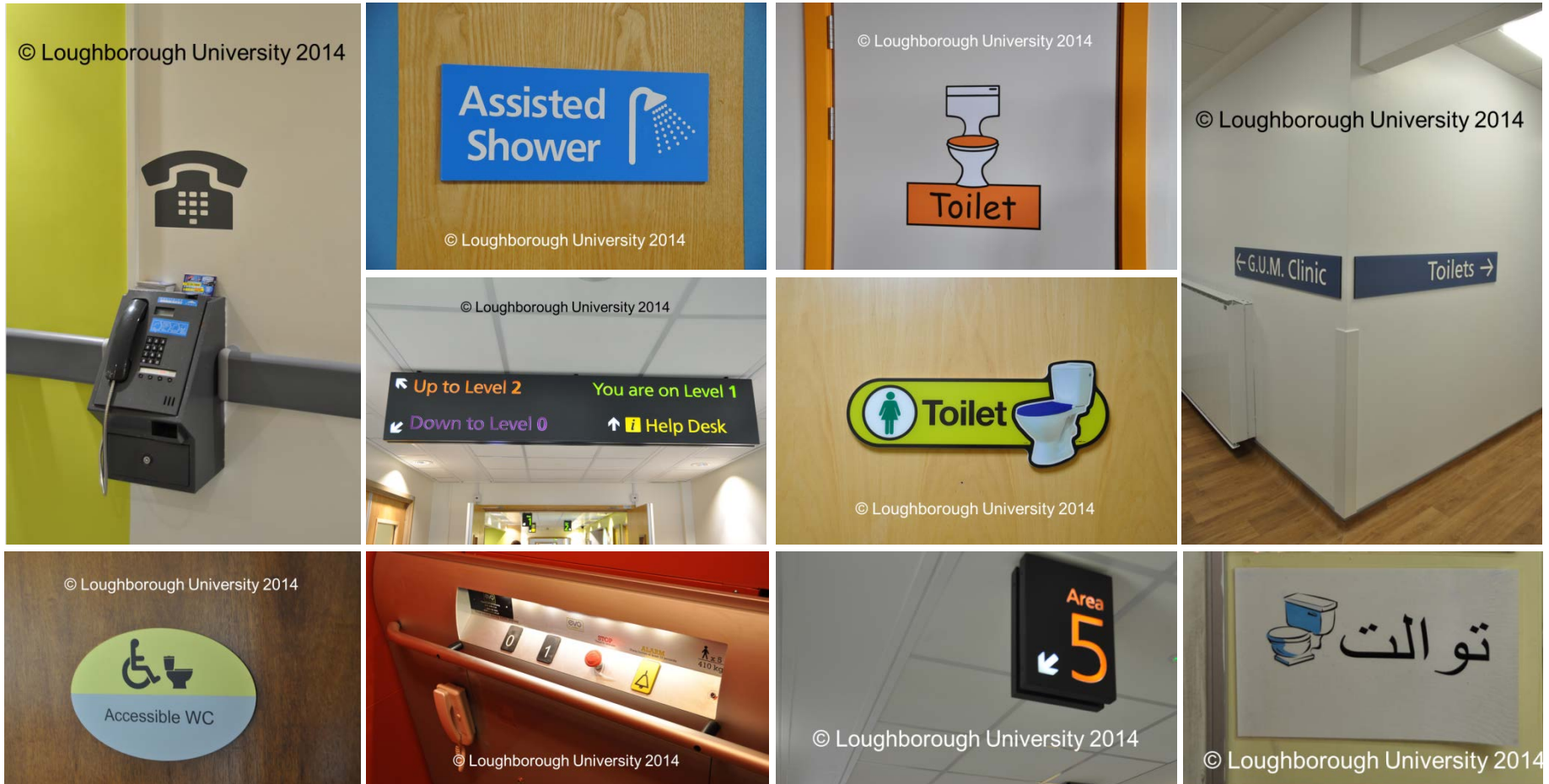
5. Support way-finding and navigation

- Use of familiar pictures and images



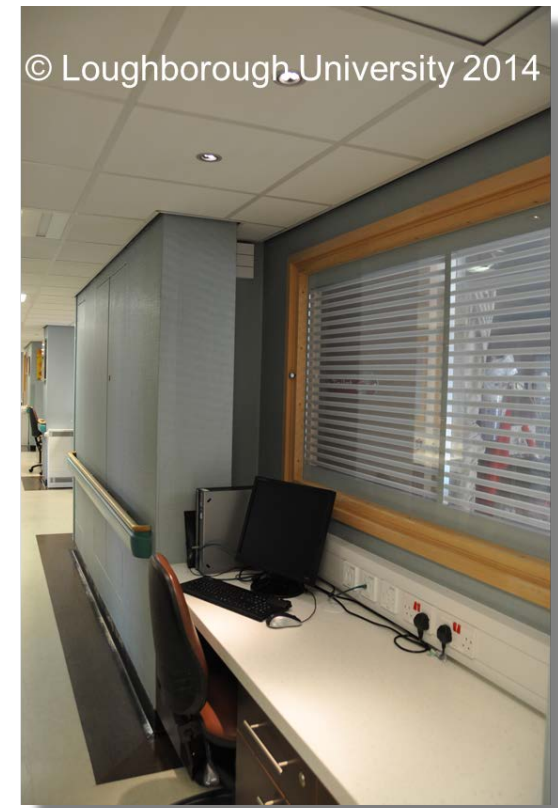
5. Support way-finding and navigation

- Use of appropriate and legible signage



6. Promote respect, privacy and dignity

- Use of internal glazing, screens and blinds



6. Promote respect, privacy and dignity

- Allow and respect cultural differences



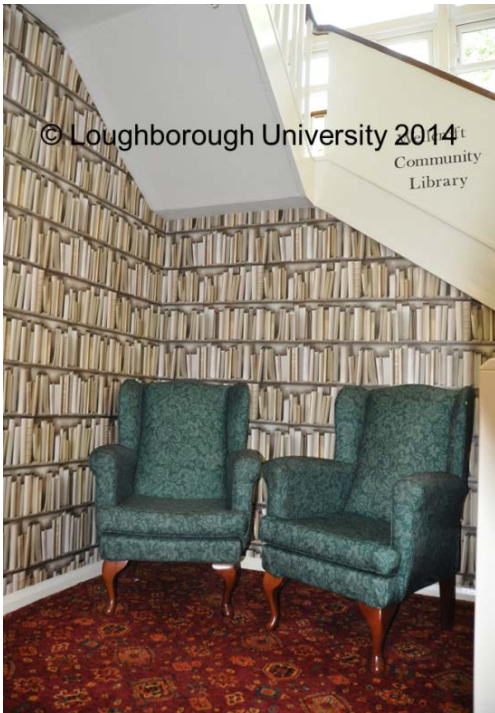
7. Encourage movement and engagement

- Use of legible layouts



7. Encourage movement and engagement

- Use of short corridors and resting points



7. Encourage movement and engagement

- Access/visual to gardens, patio areas and conservatories



8. Provide an optimum level of stimulation

- Use of sensory rooms and reminiscence software



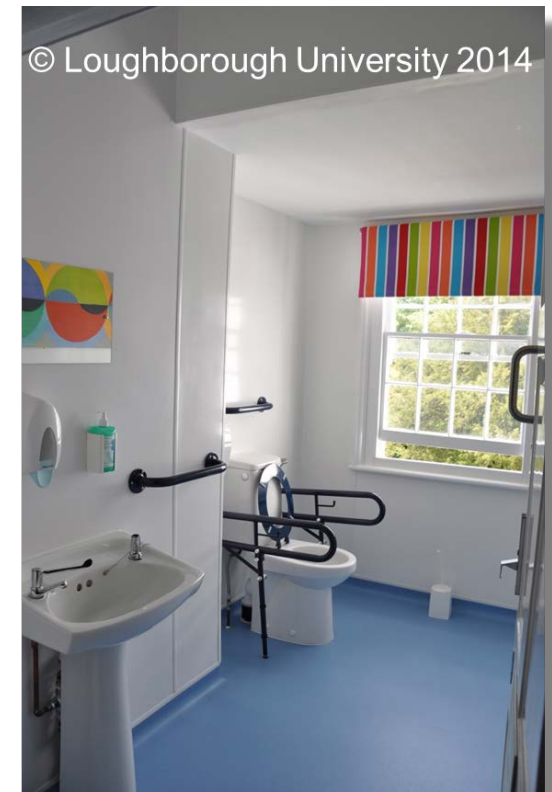
8. Provide an optimum level of stimulation

- Appropriate noise and light levels



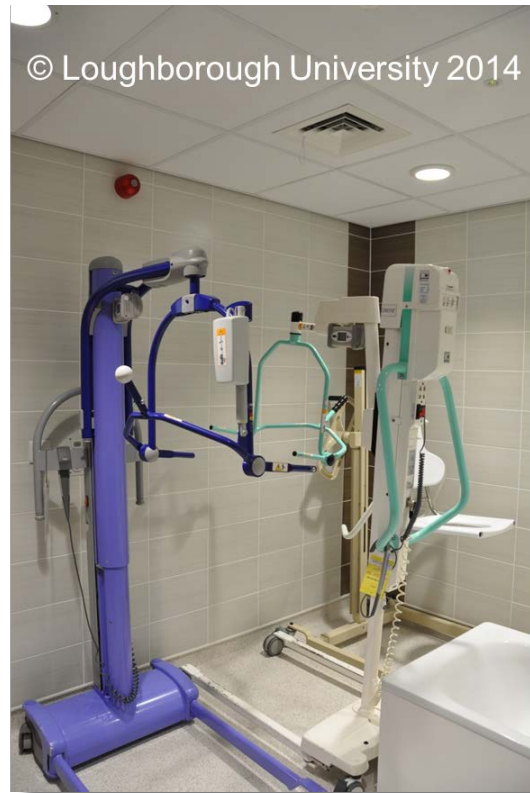
9. Encourage independence

- Toilets with contrasting colour seats and handrails



9. Encourage independence

- Bathrooms and wet rooms with ceiling mounted hoists



9. Encourage independence

- Safety devices (e.g. acceleration detectors, alarms) and personal files/diagnosis (e.g. passport with level, needs)



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Version 2 Date: 10/10/2013

Key for M

NBM

At risk of having need unmet

THINK PINK

High or medium POMA, needs re-evaluating

Problems with Communication

At Risk of falls

Fallen in hospital

Diagnosis

Diagnosis key 001/12/13 A. P. H. S.

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1 hour
2 hours

Any assistance please speak with ward physiotherapist.

Mobility level (Circle)

Other aids:

Note: Patient's ability may vary – risk assess before starting.

Staff required?

Assistance of 2 people

Assistance of 1 person

Supervision of 1 person

Independent

Distance (Circle)

Transfers Only

To End of Bed

To Bathroom

Comm

Comments: (e.g. sitting out clock, cardiac chair position/AM/PM, specific night mobility)

At risk of legs giving way on long walks + fatigue

All staff completing or changing the Mobility Chart must clearly date this and document what has been

Date: April 2013

Revision: January 2014

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Your picture here

Knowing Me

Knowing a few simple things about me, will help you, to help me.

This booklet belongs to: _____

Who likes to be called: _____ Born: _____

Address: _____

Date Booklet completed: _____ By: _____

People important to me are:

Name: _____ Relationship: _____

What they do for me: _____

Contact number: _____ Can be contacted at night: Yes/No

Name: _____ Relationship: _____

What they do for me: _____

Contact number: _____ Can be contacted at night: Yes/No

Name: _____ Relationship: _____

What they do for me: _____

Contact number: _____ Can be contacted at night: Yes/No

10. Support diet and nutrition

- Allow choice for dining areas



10. Support diet and nutrition

- Use of coloured contrasting crockery and adjustable cutlery



11. Provide access to natural light

- Use of large and low windows



12. Provide optimum lighting and contrast

- Use of roof-windows and artificial lighting



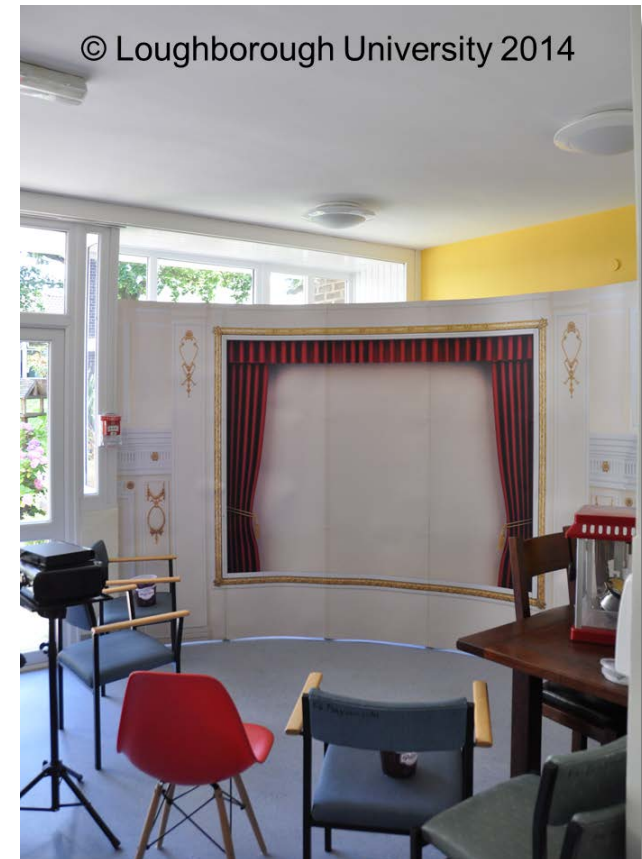
12. Provide optimum lighting and contrast

- Use of adjustable lighting levels



13. Promote contact/communications with friends & relatives

- Access to areas & elements for interaction



13. Promote contact/communications with friends & relatives

- Easy access to outdoor areas



Conclusions: Environmental impact

- Interventions in **different types of settings** (e.g. acute hospitals, care homes, sheltered houses, day centres).
- Opportunity to transform built environments and increase the **value of space** towards a better use of resources.
- **Staff empowerment** and consequent reduction of tension in the working environment.
- Use of the built environment to **change care delivery** (e.g. improved use of supportive technologies and focus on integrated care pathways).
- **Greater understanding** of how age-related issues impact on the perception of the built environment.

Conclusions: Economic impact

- Most of the principles can be achieved at **relatively low cost** and can be applied to health and social care environments (e.g. transferred, repeated and integrated).
- Opportunity to **capitalise organisation assets** through additional and long-term investments.
- Generated **Value for Money** in a variety of elements: triggered further investments; decreased staff turnaround; introduced new working roles; reduced the stigma of dementia; boosted local and regional economies.
- **Long-term implications** on people with dementia: reduced Length of Stay; reduced need of hospitalisation; smoother care pathway; reduced need of carers; improved safety.

Conclusions: Social impact

- Improved **Quality of Life** of people with dementia and carers.
- Great **enthusiasm and engagement** of: clinical staff, contractors, charity organisations, volunteers, education sector and local communities.
- Extensive and valuable **knowledge sharing** among each individual involved in any project stage (i.e. impact on their dementia awareness, within the participant organisations and among the local communities).
- Broad **empowerment of community-based settings**.
- Opportunity to put in action a long-term process to enhance a **Culture Change** at national scale.

Next steps

- Most of the Pilot Projects are willing to take this Programme one step further and embed dementia friendly design principles into their organisational and operational processes.
- An Expert Panel was set up during the Stage 2 and will be involved to validate the design principles identified through the Programme in Stage 3.
- The next stage will be to analyse the evidence gathered to support the development of DH evidence-based design standards and guidance for dementia friendly environments in Health and Social Care settings (March 2015 - Stage 3).

***Thank you
for your kind attention***

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