

# DPD

Designing for People with Dementia

# The Environmental Audit Tool

Richard Fleming  
Ian Forbes  
Kirsty Bennett



## The principles

### 1. Unobtrusively reduce risks - safety

People with dementia require an internal and external environment that is safe, secure and easy to move around if they are to make the best of their remaining abilities. However, obvious safety features and barriers will lead to frustration, agitation and anger and so potential risks need to be reduced unobtrusively.

### 2. Provide a human scale - size

The scale of a building will have an effect on the behaviour and feelings of a person with dementia. The experience of scale is determined by three factors; the number of people that the person encounters, the overall size of the building and the size of the individual components, such as doors, rooms and corridors. A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should help the person feel in control.

### 3. Allow people to see and be seen - visual access features

The provision of an easily understood environment will help to minimise confusion. It is particularly important for people with dementia to be able to recognise where they are, where they have come from and what they will find if they head in a certain direction. When they can see key places, such as a lounge room, dining room, their bedroom, kitchen and an outdoor area they are more able to make choices and find their way to where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person with dementia the confidence to explore their environment. It can also enable staff to see residents from where they spend most of their time. This reduces their anxiety and the anxiety of the residents.

### 4. Reduce unhelpful stimulation - stimulus reduction features

Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia can become stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not helpful. The full range of senses must be considered. Too much visual stimulation, for example, is as stressful as too much auditory stimulation.

### 5. Optimise helpful stimulation - highlighting useful stimuli

Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing ie providing a number of cues to the same thing, recognizing that what is meaningful to one person will not necessarily be meaningful to another. A person may recognize their bedroom, for example, because of a view, the presence of furniture, the colour of the walls, the light fitting and/or the bedspread. Cues need to be carefully designed so that they do not become unhelpful stimulation.

### 6. Support movement and engagement - provision for wandering, circulation and access to outside area

Aimless wandering can be minimised by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and gives them opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

### 7. Create a familiar space - familiarity

The person with dementia is more able to use and enjoy spaces and objects that were familiar to them in their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. This will involve an understanding of the personal background of the people living in the environment. The involvement of the person with dementia in personalising the environment with their own familiar objects should be encouraged.

### 8. Provide opportunities to be alone or with others - privacy and community

People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of spaces, some for quiet conversation with one or two others and some for larger groups, as well as spaces where people can be by themselves. These internal and external spaces should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to what is available and stimulate different emotional responses.

### 9. Provide links to the community - community links

Without constant reminders of who they were, a person with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity. This is made easier when the person is admitted from the local community as friends and relatives are able to drop in easily.

The environment must include spaces for the resident and their visitors to use within the unit and in its immediate surrounds. These need to be attractive and comfortable to encourage visitors to come and spend time. Stigma remains a problem for people with dementia so the unit should be designed to blend with the existing buildings and not stand out as a 'special' unit. Where possible a 'bridge' should be built between the unit and the community by providing a space that is used by both the community and people with dementia. Where the unit is a part of a larger site, there should be easy access around the site so people with dementia, their families and friends can interact with other people who live there.

### 10. Providing opportunities for engagement with ordinary life - domestic activity

The environment should be as homelike as possible, recognising that older people are there to live, and so need access to opportunities for engagement with life. An environment that focuses on engagement with life allows residents to make decisions and exercise choice and independence, both in the way they spend time and what they do. The environment should allow older people to continue to do the things that they have done throughout their lives.



**The Environmental Audit Tool**

Date:..... Time: ..... Facility:.....

Unit: ..... Observer: .....

Unobtrusively reduce risks - safety		N/A	NO	YES	Add 1 if Unobtrusive	Score
1	Is the garden secure, i.e. are residents prevented from getting over/under fence or out of the gate without the assistance of a staff member?	N/A	0	1	1	
2	If the front door leads out of the unit is it secure?	N/A	0	1	1	
3	Are all side doors leading out of the unit secure?	N/A	0	1	1	
4	Are bedroom windows restricted in the extent to which they open so that residents cannot climb out?	N/A	0	1	1	
5	Is the garden easily supervised from the point(s) where staff spend most of their time?	N/A	0	1	1	
6	Is there a way to keep residents who are not safe with knives and/or appliances out of the kitchen?	N/A	0	1	1	
7	If the kitchen is used by residents is there a lockable knife draw in the kitchen?	N/A	0	1	1	
8	If the kitchen is used by residents is the cooker a gas cooker?	N/A	0	1		
9	If the kitchen is used by residents is there a master switch that can be turned off quickly?	N/A	0	1		
10	Is the temperature of the water from all taps accessible to residents limited so that it cannot scald?	N/A	0	1		
11	If residents are involved in meal preparation are the pots and pans used small enough for them to lift easily?	N/A	0	1		
12	Are all floor areas safe from being slippery when wet (water or urine)?	N/A	0	1		
13	Is the lounge room easily supervised from the point(s) where the staff spend most of their time?	N/A	0	1	1	
14	Are all areas used by residents well lit?	N/A	0	1		
<b>Total Score</b>						



Provide a human scale - size		10 or less	11-15	16-30	30+	Score
1	How many people live in the unit?	Score 3	Score 2	Score 1	Score 0	

Allow people to see and be seen - visual access								Score
1	What proportion of confused residents can see their bedroom door from the lounge room?	N/A	0 Score 0	25% Score 1	50% Score 2	75% Score 3	100% Score 4	
2	What proportion of confused residents can see the lounge room as soon as they leave their bedroom?	N/A	0 Score 0	25% Score 1	50% Score 2	75% Score 3	100% Score 4	
3	What proportion of confused residents can see the dining room as soon as they leave their bedroom?	N/A	0 Score 0	25% Score 1	50% Score 2	75% Score 3	100% Score 4	
4	Can the exit to the garden be seen from the lounge room? If there is more than 1 lounge room answer with reference to the one most used by most confused residents.	N/A		NO Score 0		YES Score 1		
5	Can the dining room be seen into from the lounge room? If there is more than 1 dining room or lounge room answer with reference to those used by most confused residents.	N/A		NO Score 0		YES Score 1		
6	Can the kitchen be seen into from the lounge room? If there is more than 1 lounge room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
7	Can the kitchen be seen into from the dining room? If there is more than 1 dining room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
8	Can a toilet be seen from the dining room? If there is more than 1 dining room answer with reference to the one used by most confused residents	N/A		NO Score 0		YES Score 1		
9.	Can a toilet be seen from the lounge room? If there is more than 1 lounge room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
10.	Can the lounge room be seen into from the point(s) where staff spend most of their time?	N/A		NO Score 0		YES Score 1		
<b>Total Score</b>								





Reduce unhelpful stimulation - stimulus reduction features		Yes	No	Score
1	Does the doorbell attract the attention of the residents?	0	1	
2	Is the noise from the kitchen distracting for the residents?	0	1	
3	Are doors to cleaners' cupboards, storerooms and other areas where residents may find danger easily seen (i.e. not hidden or painted to merge with the walls?)	0	1	
4	Is the wardrobe that the resident uses full of a confusing number of clothes?	0	1	
5	Are deliveries of food, linen etc. taken across public areas such as the lounge or dining room?	0	1	
6	Is there a public address, staff paging or call system in use that involves the use of loud speakers, flashing lights, bells etc?	0	1	
7	Is the front entry to the unit easily visible to the residents?	0	1	
8	Is the service entry (where food, linen etc is delivered to) easily visible to the residents?	0	1	
<b>Score is number of NO responses</b>				

Optimise helpful stimulation - highlighting useful stimuli		NO	YES	Score
1	Is the dining room looked into from the lounge room or <u>clearly</u> marked with a sign or symbol?	0	1	
2	Is the lounge room either looked into from the dining room or <u>clearly</u> marked with a sign or symbol?	0	1	
3	Do bedrooms have a sign, symbol or display that identifies them as belonging to a particular individual?	0	1	
4	Are the shared bathrooms and/or toilets <u>clearly</u> marked with a sign, symbol or colour coded door?	0	1	
5	Is the kitchen either looked into from the lounge or dining room or <u>clearly</u> marked with a sign or symbol?	0	1	
6	Are toilets visible as soon as the toilet/bathroom door is opened?	0	1	
7	Is there a lot of natural lighting in the lounge room?	0	1	
8.	Is the artificial lighting bright enough in all areas?	0	1	
9.	Is the lighting free of glare, eg from bare bulbs, off shiny surfaces?	0	1	
<b>Total Score is number of YES responses</b>				



Support movement and engagement - provision for wandering, circulation and access to outside area		NO	YES	Score
1a	Is there a clearly defined and <u>easily</u> accessible (i.e. no locked exit) path in the garden that guides the resident back to their starting point without taking them into a blind alley?	0	1	
<b>If answer to 1a is YES answer 1b,1c,1d,1e,1g and 1g</b>				
1b	Does the external path allow the resident to see into areas that might invite participation in an appropriate activity other than wandering?	0	1	
1c	Is the path within a secure perimeter	0	1	
1d	Can this path be easily and unobtrusively surveyed by staff members?	0	1	
1e	Are there chairs or benches along the path where people can sit and enjoy the fresh air?	0	1	
1f	Are there both sunny and shady areas along the path?	0	1	
1g	Does the path take residents past a toilet?	0	1	
2a	Is there a clearly defined path inside that takes the resident around furniture and back to their starting point without taking them into a blind alley?	0	1	
<b>If answer to 2a is YES answer 2b</b>				
2b	Does the internal path allow the resident to see into areas that might invite participation in an appropriate activity other than wandering?	0	1	
<b>Total Score is number of YES responses</b>				

Create a familiar space - familiarity		Many	A few	None	Score
1	Are there any colours in the furnishings or the decoration that would <u>not</u> have been familiar to the majority of residents when they were 30 years old?	0	1	2	
2	Are there any taps, light switches, door knobs that are to be used by residents that are of a design that would <u>not</u> have been familiar to the majority of residents when they were 30 years old?	0	1	2	
3	Are there any pieces of furniture in the lounge room or the dining room that are of a design that would <u>not</u> have been familiar to the majority of residents when they were 30 years old?	0	1	2	
4	Are there any pieces of furniture in the bedrooms that are of a design that would <u>not</u> have been familiar to the majority of residents when they were 30 years old?	0	1	2	
5	How many residents have their own ornaments, photos in their bedroom?	2	1	0	
6	How many residents have their own furniture in their bedroom?	2	1	0	
<b>Total Score</b>					



Provide opportunities to be alone or with others - privacy and community						Score
1	Are there small areas (nooks) that provide opportunities for casual interaction and quiet chats?	None Score 0	1 Score 1	2 Score 2	3 or more Score 3	
2	How many of these areas or nooks have views of pleasant or interesting scenes (outside, the living room, the nursing station)?	None Score 0	1 Score 1	2 Score 2	3 or more Score 3	
3	Do the shared living areas support small group activities (4-6 people) without rearranging the furniture?	N/A	NO Score 1	YES Score 2		
4	Does the dining room provide opportunities for residents to eat in small groups (2-4)?	N/A	NO Score 1	YES Score 2		
5	Does the dining area provide opportunities for people to eat alone?	N/A	NO Score 1	YES Score 2		
<b>Total Score</b>						

Provide links to the community - community links		NO	YES	Score
1	Is there an area or room somewhat removed from the main dining room where families can share meals with their relatives?	0	1	
<b>If answer to 1 is YES answer 1a</b>				
1a	Is this room/area domestic and familiar in nature, to reassure family members and friends and encourage them to visit and to participate in the care of the resident?	0	1	
<b>Total Score is number of YES responses</b>				

Providing opportunities for engagement with ordinary life - domestic activity		None	Up to 50%	More Than 50%	Score
1	Do the residents have access to a kitchen?	0	1	2	
2	Have a significant involvement in main meal preparation?	0	1	2	
3	Have a significant involvement in making snacks or drinks?	0	1	2	
4	Have a significant involvement in keeping bedroom clean and tidy?	0	1	2	
5	Have a significant involvement in personal laundry?	0	1	2	
6	Are involved in gardening?	0	1	2	
7	Have constant and easy access to a lounge?	0	1	2	
8	Have constant and easy access to a dining room?	0	1	2	
<b>Total Score</b>					



## Summary of Scores

	Possible Score	Actual Score	Percentage
Unobtrusively reduce risks - safety	22		
Provide a human scale - size	3		
Allow people to see and be seen - visual access	19		
Reduce unhelpful stimulation - stimulus reduction features	8		
Optimise helpful stimulation - highlighting useful stimuli	9		
Support movement and engagement - provision for wandering, circulation and access to outside area	9		
Create a familiar space - familiarity	12		
Provide opportunities to be alone or with others - privacy and community	12		
Provide links to the community - community links	2		
Providing opportunities for engagement with ordinary life - domestic activity	16		
<b>Total Score</b>	<b>112</b>		The Total Score is the average of the percentage scores above.

### Copyright

The Environmental Audit Tool copyright is held by the NSW Ministry of Health.  
See - Fleming, R., I. Forbes and K. Bennett (2003). Adapting the ward for people with dementia.  
Sydney, NSW Ministry of Health.

The copyright of the additional material is held by the University of Wollongong and all rights are reserved.

The authors wish to thank Cathy Greenblat for providing the cover photograph and encouraging us all to find a positive way to work with people with dementia. Photograph © Cathy Greenblat 2013. All rights reserved.











