Report from the Workshop on

Emerging Issues with the design and development of Multi Purpose Services

6 March 2009

Prepared by

JulieAnne Anderson
JA Projects Pty Ltd

1. Background to the workshop

At the annual Health Capital and Asset Management Consortium (HCAMC) meeting in Brisbane on the 16th November 2007, the Centre for Health Assets Australasia presented a paper on emerging issues in Health Care Design. It was agreed that as part of the Australasian Health Facilities Guidelines (AustHFG) review process a number of workshops would be convened in 2008.

Four emerging issues workshops have been held during 2008 including workshops on Operating Theatres held in Adelaide in April 2008, the Inpatient Unit held in Brisbane in August 2008, Medical Imaging and Technology held in Perth in October 2008 and Mental Health Units held in Canberra in December 2008.

A number of issues with Multi Purpose Services (MPS) have been identified and NSW Health agreed to host a workshop on Emerging Issues with Design of Multi Purpose Services on 6 March 2009.

The aims of the workshop were:

- To allow participants to explore how MPS facilities could develop a more appropriate environment for long term aged care at a reduced capital cost, and
- To provide an opportunity for public and private providers of general health care and long term aged care to explore flexible facility design to meet a range of health care requirements for rural and remote communities.

The workshop objectives included:

- To highlight issues that are emerging with MPS developments across Australasia
- To facilitate discussion on the environment required in an MPS to meet the needs of clients, especially aged care residents
- To examine relevance of aged care private sector developments, capital costs and environment, for public MPS developments in Australia and New Zealand
- To identify gaps in capacity at MPS facilities and the potential for increased use with flexible spaces designed in the facility.

The workshop program is provided at Attachment 1 and a list of participants at Attachment 2.

A Background Paper was distributed prior to the workshop along with a literature review. These documents are provided at Attachments 3 and 4 respectively. Some further resource material is provided at Attachments 5.

The workshop was facilitated by JulieAnne Anderson of JA Projects Pty Ltd.

2. Workshop sessions and issues

There were a number of sessions held at the workshop where an overview of a specific topic was provided and then group discussion occurred. A summary of the information obtained from each session is provided below.

Session 1: The MPS Model - *Overview of the Model*

Jenny Sheehan, Manager Rural Health Services & Capital Planning, from NSW Health commenced the information sessions with an overview of the MPS model, noting that the model was called different names in different jurisdictions across Australia.

What is the MPS Model?
The MPS model of service delivery is an Australian Government/State initiative aimed at providing sustainable and responsive health and aged care services to rural and remote communities by integrating acute, high and low aged care services under one management structure. The model has evolved over time with primary care services, such as GPs and dentist also being co-located with an MPS.

The MPS model involves the pooling of Australian Government/State program funds for health and aged care service delivery to allow a more flexible, coordinated and cost effective framework for delivery of an appropriate mix of services to meet community needs.

The Australian Government provides aged care funding which is combined with state and territory government funding for health services and infrastructure to bring a flexible mix and range of aged care and health services together under one management structure. This provides small communities who are having difficulty supporting a range of independently run services the opportunity to develop a more coordinated and cost-effective approach to service delivery.

Legislative requirements for MPS vary in each state and territory. At the Australian Government level, MPS fall under the *Aged Care Act 1997* and the *Aged Care Principles 1999.*

MPS are required to deliver services in accordance with the *National Quality Improvement Framework for Multipurpose Services* and the relevant state and territory health quality framework.

A brief history of the MPS Program
In 1991, Australian and state government representatives came together to look at improved ways of meeting the health and aged care needs of people living in rural Australia. The group supported the development of the Multi Purpose Service Program. In 1993, it was piloted in 11 services around Australia and raised considerable interest among many rural communities. Since then, the MPS Program has expanded. As at 30 June 2008 there were 117 MPS in operation across Australia, with several more under development. At the workshop the number of MPS across Australia had expanded from the figure sited above.

The program works on a model of health and aged care service delivery that aims to help small rural and remote communities to tackle some of the challenges they face through providing a more viable health service.

The major objective of the MPS Program is to improve:

- the range of health and aged care services being offered in the community
- the delivery of health and aged care services
- community participation in the planning of local health and aged care services

- the quality of care for community members
- the cost-effectiveness and long-term future of the services.

NSW Health recently undertook a survey as part of an overall Strategic Review. The survey identified that post occupancy and establishment of the model most MPS reported improved access across the full range of services provided, the areas identified most frequently included access to:

- high care places
- low care places
- community health
- outpatient services.

Improvements in the range of community health and outpatient services were also identified by most services. An MPS will be able to offer more service choices, such as older people being offered home based or residential care, and a greater focus on health education and illness prevention programs. These programs can be designed to meet the specific needs of the community.

To achieve these benefits, an MPS is encouraged to be innovative in its service delivery. For example, MPS staff may also work in residential aged care, acute care and community care settings as the need arises.

Session 2: Identifying issues that are emerging with MPS developments across Australasia

Kim McClymont, Service and Capital Planning, from NSW Health, presented a range of issues that are emerging with MPS developments across Australia.

The key issues identified were:

- Facilities for aged care are developed as a component of the MPS facility along with acute facility. This has resulted at times in the planning for the aged care component occurring from a hospital perspective resulting in a 'clinical' environment rather than a 'home like' environment. The literature for over 20 years overwhelmingly supports the development of home-like environments for aged care facilities. (See attachment 4 for further information)

- Private hostels are developing environments that are more appropriate for long term aged care accommodation

- Private sector capital costs are cheaper for aged care accommodation. Capital costs in NSW MPS developments for aged care accommodation are high compared to private sector developments:

    - MPS - approx. $427,000 per bed[*]
    - Private sector - $250,000 per bed

[*] Participants at the workshop reported that this figure is now much higher – closer to $700,000 per bed.

- Provision of flexible spaces. Service providers have identified the need for availability of flexible spaces in MPS designs to accommodate a range of services such as:
  - The provision of multi function rooms in an MPS to cater for mobile dental treatments, visiting specialists, student desk and computer access particularly when there are multiple students on site.
  - Provision of a flexible space that can accommodate visiting pharmacists who may be reviewing clinical needs of patients and residents.
  - Telehealth/video conferencing facilities that support rural clinicians in assessment, diagnosis and treatment of patients, remote pharmaceutical dispensing, case conferencing, education and clinical supervision.
  - Staff Accommodation

- Use of modular design. Modular designs could be developed for a small MPS and a large MPS with options for external fabric depending on the environment and orientation. This has the potential to reduce design costs and ensure a consistent approach in relation to functional relationships, service pods to consider staffing issues etc.

Two dominant models of aged care provision and environmental design which have emerged in America were described: *The Eden Alternative* and *Green Houses*. Principles underpin the models and are reflected in facility design and living environments.

The Eden Alternative was established by a medical officer in America. The Eden Alternative designs contemporary habitats for people who live and work in long term care facilities. The approach involves nature, lawns, and vegetable gardens.

The Grace Living Center in Jenks, Oklahoma is a 187 bed long term aged care facility that as incorporated the Eden Alternative principles. In the lobby there is an ice cream parlour, aviaries, a living room and access to a playground. There are resident pets and five days a week, preschoolers and kindergarten children attend school there. The children adopt a resident and meet with their reading buddies in the resident's dining room.

A Green House is a purposely build residence, generally for 10 or fewer older people needing residential aged care. A group of Green Houses, either on a single campus or scattered throughout a neighbourhood, holds a nursing facility license, meets all legal facility requirements, and provides care within a 'Medicaid' reimbursement rates. A Green House blends architecturally with other homes in its neighbourhood and incorporates pattern symbols such as living room hearth, family dining area, farm house kitchen, laundry area, porch and easily accessible inviting outdoor living spaces. To minimise the signposts of the medical model, call systems are wireless and connected to silent pagers and nurses stations, medication charts and treatment carts are taboo.

Issues raised in the group discussion included:

- The financial viability for public and private aged care facilities is quite different , with the public sector frequently building 30 bed facilities and the private sector building 100 bed facilities
- To encourage more homelike environments, perhaps staff in the project team could visit some private sector facilities to view their design
- The public and private sector have different procurement processes which impacts on design and construction

- The AusHFG for MPS are mainly nursing focussed and there are no room data and layout sheets for residential aged care
- Design needs to support good use of workforce
- Occupational health and safety along with security arrangements needs to be met in public health facilities
- Design often includes a 'nurses station – but is this really required
- Costs and design are impacted upon by the classification of the building; ie. Is the facility classified as a hospital or a residential aged care facility? Building Code of Australia requirements are significantly different for each facility type.
- Medical gases should not need to be available in resident's rooms; Country SA Policy is that no medical gases are in residential aged care facilities
- Queensland Health has designs which have taken sinks from resident's rooms; staff use the sink in the ensuite or in the corridor.

Session 3: Designing the environment in an MPS to meet the needs of clients, especially aged care residents
- **public sector approaches**
- **aged care private sector approaches**

This session was held as a whole group discussion to consider the differences of approaches for the private and public sectors. Issues raised in the discussions could be grouped into a few main areas:

Flexible spaces:
- need group room/s that can be:
  - flexible in size and use
  - be accessible after hours for use by community groups
  - used for a range of activities such as a Men's Shed
- multi-use areas can also cater for activities such as computers, reading, music, quite space, family gatherings

Capital costs:
- Capital costs can be offset by leasing to private providers
- Partner with other community agencies to obtain capital such as councils, NGOs, Public/private partnerships
- the lengthy consultation process in the public sector adds to the overall cost
- private sector providers involve people whose business is aged care and they work closely to the Business Case that has been approved

Design issues:
- need space to allow for care to be provided in the resident's room or in another location
- consideration of the needs of the community being served; eg. ATSI populations, men, bariatric patients
- opportunity to enhance the 'life' on site, for example by building a community centre or child care centre
- ensure user group members are well aware of the design guidelines and appropriate staff are on the user group eg. Cleaners, kitchen hand, cook, maintenance workers & aged residents.
- staff need dedicated time away from clinical work to assist in planning and designing the new facility
- successful planning requires a clear description of what is 'in scope' and 'out of scope' and the purpose of any consultation processes

Value for money:

- consideration of the costs of refurbishment or replacement of the old facility
- utlise smart engineering processes which allow for off-site management of equipment. For example, local handyman can work with offsite engineer to monitor and address issues
- consider the lifetime costs of assets
- consider services such as air conditioning versus ceiling fans
- policy to support local businesses
- design may be environmentally appropriate – but this comes at a cost.

Other:

- who can assist in facilitating organised activities – school group's community groups;
- building the facility so that residents and staff can view the local community; see the street, shops, pedestrians etc
- change management processes are crucial including up to the operationalising of the new facility
- experience had shown that results are greater if the project managers are seen on site frequently
- needs of baby-boomers in self care aged care facilities have been surveyed and the results show:
  - want proximity to family and shops
  - consider the location and access to public transport and health services, such as GP
  - security – their own physical safety and the safety and security of the building

Session 4: Maximising MPS facilities to meet the needs of the community

Ros Johnson, NSW Health, presented this session and focussed on emerging health and community issues and the possible role an MPS could take in addressing these issues.

Health Promotion/Prevention

The MPS could have an increasing role in community health in both primary prevention and responding to health problems evident in the community. Some of the major future health issues identified were:

- Ageing (Falls)
- Chronic Disease (Renal, Diabetes, Cardiac, Cancer)
- Mental Health

Strategies which assist in prevention and management of these issues include:

- Diet, exercise eg. Weight bearing exercise to prevent falls
- Community connectedness

In group discussion the participants identified a number of ways for MPS to assist in health promotion and prevention:

- Using group rooms for community activities, such as exercise classes, local gym
- Developing community gardens which could be raised to allow for people in wheelchairs to participate in gardening
- Use of Telehealth to meet the health promotion role

- Ensure the kitchen is designed for multi-use:
    - ADL kitchen for assessments
    - Availability as a ‘community kitchen’
    - Utilise the community garden
- Develop community rehab programs open to people with a range of health conditions to use local facilities eg walking track
- Residents/staff paired to enable supervised exercise and advocacy
- Utilise local high school students to walk with residents

<u>Adapting to new health service models</u>

A number of new models of health service delivery were discussed such as:

- Outreach – for example, outreach from larger centres to smaller communities, providing services such as allied health from offsite or using other local service providers such as the local retail pharmacist to provide services eg screening

- Telehealth – to enhance clinical care, teaching and clinical support and supervision

  Challenges identified in the use of Telehealth were:
    - the lack of dedicated time for education and training for health professionals, and
    - the IT capacity, maintenance support and training for staff in the use of Telehealth

- Self care, such as community members self managing their renal dialysis in MPS due to lack of adequate water supplies in their home. There are emerging issues in the clinical governance of self care models especially the staff responsibilities and staffing numbers.

- Other new technology. For example dispensing medications remotely via a vending machine.

Participants identified the need to have better involvement of the local community in planning for an MPS in areas such as education and pastoral care.

<u>Whole of Government Approaches</u>

Many government agencies experience similar challenges in the provision of services in rural and remote areas. Some ways that services at an MPS could assist in addressing some of these challenges is through a whole of government approach. For example:

- Co-location
    - Health services and other related services located on one site
    - Range of government services “Government Service Centre” (State and Federal)
- Cross Agency Employment
- Cross Agency Staff Accommodation. This would ensure there is a critical mass for provision of accommodation and enhance security.

In discussion it was noted that:

- there can be challenges in meeting the disparate needs of services which are co-located.
- Queensland Government agencies have a shared maintenance program which works effectively.

Training and Education

Training and education is a crucial area to ensure adequate numbers of suitably qualified staff are available.

Training for health workforce includes students from schools, TAFE and University students and education of current staff. Training and education has an impact on facilities and accommodation.

Problems identified include:

- No space available for students
- No/limited computer access
- No treatment areas available for students

Participants identified a few ways of addressing these challenges:

- Linking with universities to establish/maintain services
- South Australia has intensive learning facilities which provides regional infrastructure to address these issues.

Community Resource

The MPS is not just a 'health service' and as such could be utilised as a community resource by providing the following community services:

- Library
- Meeting room/s
- Education resources, such as videoconferencing and computers

Participants highlighted that other organisations, such as the local school, could also be used in this way which would also enhance use of their facilities for the community. The MPS however maybe one of the few 24 hour services in the community.

Session 5: Identifying opportunities for improving design, cost and environments of MPS

In the final session the participants discussed a range of issues and opportunities for improving design, cost and environments of MPS.

Issues and opportunities identified in the discussion included:

- Enhanced use of technology in design, such as sensors, to ensure safety while providing a more home-like environment
- Considering ways to address the time and cost associated with the procurement processes. One option was the endorsement of the MPS program in total (eg. The development of 6 MPS in 2009/10) rather than each individual project being endorsed as a separate project.
- The burden in the application of standards, frequently designed for hospitals, to an MPS environment. Standards such as accreditation and OH&S were identified.
- Use of modular design. Perhaps there could be three or four reference designs available for different sites, environment and topography. The reference design could include the 'musts' and 'coulds' in design, which user groups could consider when designing a facility and could consider pods of 8-10 beds & associated support facilities which could be added depending on size of facility. This would provide opportunities for saving time and money

and make it easier to justify variations.

  - Opportunities exist to improve room layouts, for example, through use of room layout and room data sheets for private sector residential aged care facilities
  - Improvement in design could include:
    - Shared clinical areas which are interchangeable for use by different clinicians and visiting health care professionals
    - Need for dual egress in consulting rooms
    - Changes in room size- potential to reduce bed room sizes with space reallocated to group/family rooms
    - Shared ensuites for high care
    - Including sitting alcoves in MPS
  - Ensure user group members are adequately trained to undertake their role and that use groups have the right mix of skills to enable appropriate design of rooms.

Session 6: Where to from here

The outcomes of the workshop will be compiled into a report which will be made available to all participants.

The outcomes from this workshop will be considered in the review of the MPS Australasian Health Facility Guideline.

NSW HEALTH DEPARTMENT

ATTACHMENT 1

Emerging Issues with the design and development of Multi Purpose Services

Agenda

6 March 2009
8.45am – 4.00pm

Venue:

Vibe Hotel
88 Alfred St
Milson's Point

Time	Session	Presenter
8.45am	**Refreshments**	
9.00am	**Welcome and introduction**	Kim McClymont *NSW Health*
9.10am	**Plans for the workshop**	JulieAnne Anderson *Facilitator*
9.20	**The MPS Model** o *Overview of the Model*	Jenny Sheehan *NSW Health*
	Identifying issues that are emerging with MPS developments across Australasia o *Overview and group discussion*	Kim McClymont
10.30	**Morning tea**	
11.00	**Designing the environment in an MPS to meet the needs of clients, especially aged care residents** o **public sector approaches** o **aged care private sector approaches** *Overview and discussion*	JulieAnne Anderson
12.30pm	**Lunch**	
1.20	**Maximising MPS facilities to meet the needs of the community** *Overview and discussion*	Ros Johnson *NSW Health*
2.20	**Identifying opportunities for improving design, cost and environments of MPS** o *group work*	JulieAnne Anderson *Facilitator*
3.45	**Where to from here**	JulieAnne Anderson *Facilitator*
4.00	**Close**	

NSW HEALTH DEPARTMENT

ATTACHMENT 2

EMERGING ISSUES WITH THE DESIGN AND DEVELOPMENT OF MULTI PURPOSE SERVICES

Participants list

Name	Organisation	Email address
Kim McClymont	NSW Health	KMCCL@doh.health.nsw.gov.au
Jenny Sheehan	NSW Health	jennifer.sheehan@doh.health.nsw.gov.au
Cathy Springall	NSW Health	CSPRI@doh.health.nsw.gov.au
Ken Liddell	NSW Health	Ken.Liddell@hinfra.health.nsw.gov.au
Patsy Choo	NSW Health	PCHOO@doh.health.nsw.gov.au
John Sung	NSW Health	john.sung@hinfra.health.nsw.gov.au
Ros Johnson	NSW Health	RJOHN@doh.health.nsw.gov.au
Wilson Yeung	NSW Health	wyeun@doh.health.nsw.gov.au
Rob Bampton	ACT Health	Robert.Bampton@act.gov.au
Jennifer Hands	Qld Health	Jennifer_Hands@health.qld.gov.au
Jo Lougheed	Qld Health	Jo_Lougheed@health.qld.gov.au
Serena Mullins	Qld Health	Serena_Mullins@health.qld.gov.au
Noel Matson	Qld Health	Noel_Matson@health.qld.gov.au
Rod Moyle	SA Dept of Health	rod.moyle@health.sa.gov.au
Mark Nangle	SA Dept of Health	mark.nangle@health.sa.gov.au
Phil Preen	SA Dept of Health	phil.preen@health.sa.gov.au
Jenny Stevens	WA Dept of Health	Jenny.Stevens@health.wa.gov.au
Philip Morris	Tasmanian Dept of Health and Human Services	philip.morris@dhhs.tas.gov.au.
Margaret Binnie	CHAA	margaret.binnie@unsw.edu.au
Wes Schulstad	NSW Department of Commerce	Wes.Schulstad@commerce.nsw.gov.au
Jenner Plomley	JM Plomley & Associates Pty. Ltd	montrose8@bigpond.com
Chin Young	Rice Daubney	cyoung@ricedaubney.com.au
Carol Callaghan	Coffey	Carol_Callaghan@coffey.com
Josh Fullerton	Coffey	josh_fullerton@coffey.com

Workshop on the Emerging Issues with the design and development of Multi Purpose Services

Background paper

---

1. Introduction

At the annual Health Capital & Asset Management Consortium (HCAMC) meeting in Brisbane on the 16th November 2007, the Centre for Health Assets Australasia presented a paper on emerging issues in Health Care Design. It was agreed that as part of the AusHFG review process a number of workshops would be convened in 2008.

Four emerging issues workshops have been held during 2008 including workshops on Operating Theatres held in Adelaide in April 2008, the Inpatient Unit held in Brisbane in August 2008, Medical Imaging and Technology held in Perth in October 2008 and Mental Health Units held in Canberra in December 2008.

A number of issues with Multi Purpose Services (MPS) have been identified and a workshop is to be held in NSW on Emerging Issues with Design of Multi Purpose Services in March 2009.

The MPS Health Facility Guideline was reviewed in 2007 with a recommendation from NSW that the MPS Guideline be reviewed in 12 months to assess the impact of changing models of care. The review of the Guideline will occur following the workshop.

2. Background[1]

There are many challenges in delivering appropriate health and community services in small rural communities, particularly where these communities are located long distances from larger communities. Services required in these communities are often of a scale that is less than optimal in terms of efficiency. This sometimes means mainstream services are not viable in these communities. In the early 1990s a particular concern was that many small acute hospitals were providing long term care for people who would be more appropriately cared for in a residential care facility. At the same time, residential care services in small rural communities were either non-existent or increasingly unviable.

In 1991 a Commonwealth and State Government Task Force recommended a new approach, eventually agreed to by Health Ministers, as the new joint Commonwealth/State MPS program targeted at isolated rural communities. The development of MPSs required capital developments, in particular to create an environment appropriate for residential aged care residents and to allow other health services to be more appropriately accommodated. The funding for capital redevelopments has come from state governments and once implemented this has allowed access to a stream of revenue from the Commonwealth Government with respect to residential care funds.

---

[1] Information in this section is taken from the Multi Purpose Services Strategic Analysis Report, Draft version 4.1 September 2008 – Health Policy Analysis Pty Ltd.

MPSs are playing an increasingly important role in delivering health care to rural and remote populations. Although only 15 per cent of the Australian population live in rural areas, they still expect access to a broad range of health and community programs locally which need to be economically viable and sustainable.

At June 2007 there were 94 MPSs operational across Australia, with 36 in NSW (50 by January 2009), 29 in WA, 21 in Qld, 7 in Vic, 5 in SA and 3 in Tasmania.

3. MPS Service Model

The MPS model of service delivery is a Commonwealth/State initiative aimed at providing viable health and aged care services to rural and remote communities by integrating acute, high and low aged care services under one management structure.

The MPS model involves the pooling of State and Commonwealth program funds for health and aged care service delivery to allow a more flexible, coordinated and cost effective framework for delivery of an appropriate mix of services to meet community needs.

An opportunity exists to explore the potential for MPS services to expand their role as a community hub with the potential inclusion of additional services such as Council Community Services and Non Government Organisations.

4. Key Issues:

There are a number of emerging issues which impact on the design of MPS.

4.1 Facilities for aged care are developed from a hospital perspective resulting in a 'clinical' environment rather than a 'home like' environment

Private hostels are developing environments that are more appropriate for long term aged care accommodation

In January 2008 the NSW Health Department engaged Health Policy Analysis Pty Ltd to undertake a strategic analysis of the Multi Purpose Services program with a view to developing a business case addressing future directions for the program. Key issues identified with the built form included the look of the facility and that consideration should be given to better reflect the different but linked functions to create: a home like feel, a clinical environment and a community service base.[2]

In June 2008 the Rural Health Service & Capital Planning Unit from the NSW Health Department toured the MPS service developments in Greater Southern. Feedback from the visits, evidenced in the photos, was that the residential aged care component of the MPS is dominated by a hospital/clinical environment. The 'home like' feel that stand alone hostels create is not evidenced in the MPSs.

For over 20 years research articles have been recommending that long term residential aged care services be developed to create a 'home like' environment. An article by David Edvardsson in the Journal of Gerontological Nursing – 2008 reported the following:

[2] Multi Purpose Services Strategic Analysis Report, Draft version 4.1 September 2008 – Health Policy Analysis Pty Ltd. P:52

"Systematic reviews have shown that the progression of intellectual deterioration in people with dementia who were cared for in a homelike special care unit was slower than in people cared for in a nursing home, that creating a homelike environment can positively affect interaction and behaviour and lessen confusion and anxiety in individuals with dementia, and that enriching the environment with nature scenes, sounds, and smells and chairs, tables and pictures has been associated with positive effects on individuals behaviour and mood."[3]

Edvardsson noted however that whilst it is clear that environmental parameters influence behaviour, there is no consensus regarding which parameters are most significant in influencing behaviour and well-being among older adults, despite the accumulation of evidence.

In the Journal of Nursing Research, Wang and Kuo reported on a study that explored long-term care resident priorities with regard to facility design. The method included a literature analysis, in-depth interviews and the application of the Delphi survey. The study recommends that modern long-term aged care facilities should transition from traditional "hospital" settings into "homelike settings" as the number one priority to reduce depression, isolation and feelings of loss and increase residents control over their lives.[4]

The following pictures illustrate the different aged care environments in an MPS and a private Aged Care facility. The MPSs in the photos are recent developments with Junee MPS completed in April 2008 and Berrigan in March 2008.

Croydon
Private Hostel
High Care Bedroom

[3] Edvardsoon, David. Therapeutic Environments for Older Adults *Journal of Gerontological Nursing Vol.34, No.6, 2008*

[4] Wang, ChiaHui. Kuo, Nai-Wen. Zietgeists and Development Trends in Long-Term Care Facility Design, *Journal of Nursing Research Vol. 14 No. 2, 2006*

Koonambil Private Hostel
Hallway

Junee MPS
Residential Aged Care
Bedroom

Berrigan MPS
Hallway

4.2 Capital costs in MPS developments are high compared to private sector developments

In NSW the 2008 costs to develop an MPS are between $375,000 and $564,000 per bed while the private sector develop Aged Care facilities for $250,000[5]. It is acknowledged that the MPS figure is for all beds in the facility, including the acute beds.

Health Infrastructure have advised that the estimated cost of an acute care bed in a rural facility with services delineated at level 3 is $600,000 per bed. The average ratio of acute:non acute beds in an MPS is 1:3. Taking the mid point for the MPS bed cost of $470,000, this would approximate the cost to develop an aged care bed in a NSW MPS at $427,000 per bed. This is significantly above the private bed development cost of $250,000.

4.3 Flexible spaces

A range of issues with MPS facilities have been identified by service providers in relation to the provision of flexible spaces to accommodate a range of services. Issues identified include the following:

- The provision of multi function rooms in an MPS to cater for mobile dental treatments, visiting specialists, student desk and computer access particularly when there are multiple students on site. Provision of a flexible space that can accommodate visiting pharmacists who maybe clinically reviewing patients.
- Telehealth/video conferencing facilities that support rural clinicians in assessment, diagnosis and treatment of patients, remote pharmaceutical dispensing, case conferencing, education and clinical supervision.
- Staff Accommodation

[5] Source: Health Infrastructure

4.4 Modular Design

The workshop presents an opportunity to discuss the potential for modular design of MPS services to address a number of the issues raised. Modular designs could be developed for a small MPS and a large MPS with options for external fabric depending on the environment and orientation. This has the potential to reduce design costs and ensure a consistent approach in relation to functional relationships, service pods to consider staffing issues etc.

5. Emerging Issues Workshop

An emerging issues workshop will be held in NSW to discuss the development of MPSs as one in the series of workshops hosted by the Australasian Health Infrastructure Alliance. The workshop will provide an avenue to explore how MPS facilities could develop a more appropriate environment for long term aged care at a reduced capital cost. The workshop will provide an opportunity for public and private providers of general health care and long term aged care to explore flexible facility design to meet a range of health care requirements for rural and remote communities.

The workshop objectives include the following:

- To highlight issues that are emerging with MPS developments across Australasia
- To facilitate discussion on the aged care environment required in an MPS
- To examine the relevance of aged care private sector developments, capital costs and environment, for public MPS developments in Australia and New Zealand
- To identify gaps in capacity at MPS facilities and the potential for increased use with flexible spaces designed in the facility.

Anticipated outcomes from the workshop include:

- An evidence base for the design of the aged care component in an MPS
- An environmentally appropriate design for the aged care component in an MPS
- A cost effective (capital and recurrent) strategy
- An understanding about the requirement for flexible spaces to provide a range of services in MPSs.

At the November 2008 AHIA meeting in Hobart, all jurisdictions indicated their interest in a workshop to explore MPS developments.

Workshop audience:

The workshop is targeting participants from Australia and New Zealand from the following groups:

- State & Territory Health Authorities
    - MPS Service Providers
    - MPS Management
    - Policy
    - Service Planning
    - Capital Planning
- Commonwealth Aged Care Unit
- Private Aged Care providers

February 2009

ATTACHMENT 4

Emerging Issues with the design and development of Multi Purpose Services

RESIDENTIAL AGED CARE ENVIRONMENT - LITERATURE SUMMARY

Introduction

For over 20 years research articles have been recommending that long term residential aged care services be developed to create a 'home like' environment and that the hospital environment is not appropriate. The benefits of providing a home like environment are numerous and there is a wealth of literature and research on accommodation models and their impact on the health and well being of older people.

This report summarises some of the findings from a select number of articles exploring accommodation models and the benefits for older people and includes a synopsis of articles sourced for this report. It is provided as background reading for an Emerging Issues with Design of Multi Purpose Services Workshop to be held in Sydney in February 2009 by NSW Health and accompanies a paper discussing current issues and the Workshop objectives.

Article Summary

The benefits for older people of providing long term residential care that meets their physical care and caters for their social and emotional wellbeing in a domestic like environment are well researched and documented. An article by David Edvardsson in the Journal of Gerontological Nursing – 2008 reported the following:

> *"Systematic reviews have shown that the progression of intellectual deterioration in people with dementia who were cared for in a homelike special care unit was slower than in people cared for in a nursing home, that creating a homelike environment can positively affect interaction and behaviour and lessen confusion and anxiety in individuals with dementia, and that enriching the environment with nature scenes, sounds, and smells and chairs, tables and pictures has been associated with positive effects on individuals behaviour and mood."*[6]

Edvardsson notes that there is no consensus regarding which parameters are the most significant despite the wealth of evidence that environmental parameters influence well-being and behaviour among older people. The article explores what the concept of a home like environment includes and how relevant the notion is cross culturally. Is it enough to furnish the environment from a particular period or does it involve actions, routines and events? Through a series of interviews and collecting observational data in the Swedish health care context, Edvardsson found that environments that incorporate familiar objects, convey care and facilitate a patients understanding of what is happening were described as supporting at-homeness. Edvardsson identifies from the study three key components to a therapeutic environment for older people as follows:

---

[6] Edvardsoon, David. Therapeutic Environments for Older Adults *Journal of Gerontological Nursing Vol.34, No.6, 2008*

The findings describe therapeutic environments as being constituted by three interacting and interwoven categories: the physical environment, people's doing and being in the environment, and an organisational philosophy of care.[7]

America has a number of well researched models of residential aged care operating. The Eden Alternative is a model that has been operating in America since 1991 when Dr William Thomas introduced into a New York nursing home 100 birds, two dogs, four cats, three rabbits and a flock of laying hens. The lawn was ploughed and a large organic vegetable garden was established outside resident's windows.[8] Miller et al reported at the World Congress of Gerontology in Adelaide 1997 that in long term aged care accommodation where the 'Eden Alternative' model is applied there has been a decrease in infections, deaths and staff turnover. Miller also reported that residents expressed a high level of quality of life and less depression than normally seen among nursing home residents.[9]

Another model operating for long term residential aged care in America is the Green House model. The Green House is a home that accommodates 7-10 elders needing nursing-home-level care. The Green House holds a nursing facility license, meets all legal facility requirements and blends architecturally with other homes in the neighbourhood. The Green House includes a living room, family dining area, farmhouse kitchen, laundry, porch and an easily accessible, inviting outdoor space. Treatment carts, nurses stations and medication charts are taboo and signposts of the medical model are minimised eg silent pages and wireless call systems. Rabig et al reported in *The Gerontologist* the following:

"Small living units have been associated with reduced anxiety and depression; increased mobility and self-care skills; increased social interaction, communication, and friendship formation; and improved staff supervision. Non institutional dining experiences have been associated with improved eating behaviour in elders with dementia."[10]

John Morley and Joseph Flaherty note in an editorial in the Journal of Gerontology that from the mid 1990s there has been an attempt to medicalise the nursing home industry. The introduction of a medical director into nursing homes and medical research into care in nursing homes has resulted in improved medical care for residents. This has however been accompanied by an increase in regulations resulting in a more medical environment. Whilst research has been occurring to support the benefits of a 'domestic' environment, the medical model has become more prominent. Morley and Flaherty identify the importance of a balance between maintaining a home-like environment and appropriate medical care to optimise quality of life for residents in long term residential aged care accommodation.[11]

---

[7] Ibid P.32

[8] Shaw, Jennifer. Breaking with Tradition – Long tern care facilities have moved from sterile and foreboding to homes away from home. *Contemporary Longterm Care; Nov/Dec 2003;26,11*

[9] Miller, D K, Coe R M, Morley J E, Gettman J. Total Quality Management and Geriatric Care *World Congress of Gerontology, Adelaide, Australia 1997.*

[10] Rabig, J., Thomas, W., Kane R., Cutler, L., McAlilly, S., Radical Redesign of nursing Homes: Applying the Green House Concept in Tupelo, Mississippi *The Gerontologist; Aug 2006; 46*

[11] Morley J E, Flaherty J H, Putting the "Home" Back in Nursing Home, *The Journals of Gerontology; Jul 2002; 57A. No. 7 M419-M421.*

Overview of Articles

The following table summarises articles that have been sourced for this review. The articles listed provide an overview of the evidence supporting a 'home like' environment, some of the research regarding components that impact on health and well-being and different models. The information provided supports the provision of a home like environment and whilst it is by no means comprehensive, all information sourced was consistent in their findings.

Reference	Article Synopsis
1. Edvardsson D. **Therapeutic environments for older adults: constituents and meanings**. *Gerontology Nursing* 2008 June;34(6):32-40.	This article presents the findings of a study that aimed to describe what constitutes therapeutic environments and interpret what it means to be in such environments for older adults. Interview and observational data collected in Swedish health care contexts were subjected to qualitative content analysis. The findings describe therapeutic environments as being constituted by three interacting and interwoven categories: the physical environment, people's doing and being in the environment, and an organizational philosophy of care. The findings are interpreted in light of the existential philosophy of home as a concept, a place, and an existential experience, highlighting that therapeutic environments can support existential at-homeness among patients. The findings of this study can contribute to nursing practice by providing a conceptual basis for reflecting on and evaluating how the physical environment, staff's doing and being, and the organizational philosophy of care cooperate to support well-being among older adults living in long-term care facilities.
2. Shaw J. **Breaking with tradition. Long-term care facilities have moved from sterile and foreboding to homes away from home**. *Contemporary Longterm Care*. Nov/Dec 2003 ; 26(11):28-32, 34, 36-9	In this article, Shaw discusses two models of long term residential aged care operating in America: Barry Barkans Regenerative Community model at the Home for Jewish Parents in Oakland California; and the Eden Alternative which designs contemporary habitats for people who live and work in long term care facilities. The articles describes the central component of the Regenerative Community is about people connecting with each other through a daily group meeting where current events are discussed, poems written and songs sung. The Eden Alternatives principles try unique, culture-changing methods, such as introducing large numbers of companion animals, indoor plants, gardens and children. The Article describes the Grace living Centre in Oklahoma that includes an ice cream parlour that attracts the local children, aviaries, and a living room, access to a playground, preschool and kindergarten five days per week on the grounds. Children adopt a buddy from amongst the residents and meet to do reading.
3. Miller K, Coe R, Morley J, **Total Quality Management and Geriatric Care.** *World Congress of Gerontology, Adelaide, Australia, 1997*	For numerous reasons it is essential that geriatric practitioners become involved in improving the care delivered to older patients in all clinical settings. One of the more promising approaches to enhancing care for older persons is the set of techniques and philosophy embodied in the Total Quality Management (TQM) method. To develop an agenda for improving the quality of care delivered to older persons, we surveyed over 1,600 geriatric practitioners and asked 38 experts in geriatric care and quality improvement (QI) to respond to a series of questionnaires. Findings resulted in suggested approaches to improving care in four delivery sites (office, home acute hospital nursing home). Of note, the experts strongly favoured the newer QI methods such as TQM over traditional approaches such as Medicare Review and Minimum Data Set. Potential next steps to improve QI methods in geriatric care are outlined, use of TQM in office practice and nursing homes is reviewed, and examples of successful TQM programs in these settings are described.

4. Rabig J, Thomas W, Kane RA, Cutler LJ, McAlilly S. **Radical redesign of nursing homes: applying the green house concept in Tupelo, Mississippi**. *Gerontologist*. 2006 Aug;46(4):533-9.	PURPOSE: We present the concept of the Green House, articulated by William Thomas as a radically changed, "deinstitutionalized" nursing home well before its first implementation, and we describe and discuss implications from the first Green Houses in Tupelo, Mississippi. DESIGN AND METHODS: Green Houses are small, self-contained houses for 10 or fewer elders, each with private rooms and full bathrooms and sharing family-style communal space, including hearth, dining area, and full kitchen. Line staff at the level of certified nursing assistants, called Shahbazim, are "universal workers," who cook meals, do laundry, provide personal care, assist with habilitation, and promote the elders' quality of life. Nurses, doctors, and other professionals comprise a visiting clinical support team for the residents and Shahbazim. Multiple Green Houses comprise a nursing home, meeting all nursing facility regulations and working within state-reimbursement levels. In 2003, four Green Houses were built on the campus of a retirement community; in June of that year, 40 residents relocated from the 140-bed nursing home to the Green Houses, including 20 residents previously living in the locked dementia unit. RESULTS: Experiences to date are positive for residents, family, and staff. The sponsor is converting the entire facility to Green Houses, and other providers around the country plan to implement Green House variants. IMPLICATIONS: Because nursing home stock is aging, many physical plants are or soon will be slated for major rebuilding, thereby providing sponsors with an opportunity to consider Green Houses. Early experience suggests that Green Houses are feasible and that outcomes are likely to be positive, and it also suggests that there are some potential issues to overcome in such a dramatic reengineering of nursing homes.
5. Morley JE. Flaherty JH. **Putting the "home" back in nursing home.** *Journals of Gerontology Series A-Biological Sciences & Medical Sciences*. 57(7):M419-21, 2002 Jul.	This editorial explores the attempt over the past decade to medicalise the nursing home industry. The introduction of a medical director into nursing homes and intense medical research into care in nursing homes has resulted in improved medical care, it has however also been associated with increased bureaucratic regulations that have decreased the ability of residents to live in a home-like atmosphere for their final years. The editorial discusses two articles that describe and explore the benefits of the Eden Alternative model of care that utilises pets, plants and children together with involvement of all the staff to create a home-like environment in the nursing home. A comparison of the effects of the Eden Alternative in one nursing home and a more traditional nursing home is explored. The study suggests that physician and other health professional care is more likely to improve physical health than environmental alterations in the home. The editorial notes however that this is not a surprising finding as depression and emotional status were not reported.

6. Wang CH, Kuo NW. **Zeitgeists and development trends in long-term care facility design**. *Journal of Nursing Research.* 2006 Jun;14(2):123-32.	Through literature analysis, in-depth interviews, and the application of the Delphi survey, this study explored long-term care resident priorities with regard to long-term care facility design in terms of both physical and psychological needs. This study further clarified changing trends in long-term care concepts; illustrated the impact that such changes are having on long-term care facility design; and summarized zeitgeists related to the architectural design of long-term care facilities. Results of our Delphi survey indicated the following top five priorities in long-term care facility design: (1) creating a home-like feeling; (2) adhering to Universal Design concepts; (3) providing well-defined private sleeping areas; (4) providing adequate social space; and (5) decentralizing residents' rooms into clusters. The three major zeitgeists related to long-term care facility design include: (1) modern long-term care facilities should abandon their traditional "hospital" image and gradually reposition facilities into homelike settings; (2) institution-based care for the elderly should be de-institutionalized under the concept of aging-in-place; and (3) living clusters, rather than traditional hospital-like wards, should be designed into long-term care facilities.
7. Coleman MT, Looney S, O'Brien J, Ziegler C, et al **The Eden Alternative: Findings After 1 Year of Implementation** *The Journals of Gerontology; July 2002; 57A, M422.*	This study examines the effects of the Eden Alternative; a systematic introduction of pets, plants and children; into a nursing home on the quality of life of nursing home residents. Two nursing homes run by the same organisation participated. The findings from this study indicate no beneficial effects of the Eden Alternative in terms of cognition, functional status, survival, infection rates or cost of care after 1 year. However, qualitative observations at the Eden site indicated that the change was positive for many staff as well as residents, suggesting that it may take longer than a year to demonstrate improvements attributable to the Eden Alternative.
8. Milligan JM, Cotter M. **To grandma's house we go. A clustered living concept offers a more home-like environment**. *Contemporary Long-Term Care*. 25(9):14-6, 2002 Sep.	This article discusses the concept of cluster living for larger, longer term residential aged care facilities. The article includes key components and design principles of effective clustering.

9. Hauge S, Heggen K. **The nursing home as a home: a field study of residents' daily life in the common living rooms.** *Journal of Clinical Nursing*. 2008 Feb;17(4):460-7.	AIM: This Norwegian-based study investigates how and to what extent the idea of the nursing home as a home has been realized. BACKGROUND: For the last two decades, Norway, as other Western Country has had an explicit national policy that nursing homes should become more like homes. The research literature indicates that residents in nursing home seem to lack the opportunities to maintain a private sphere. DESIGN: A field study design was conducted. METHODS: Data were collected in 1999 in two long-term units in a traditional nursing home by using participant observation and interviewing the residents. A phenomenological hermeneutic analysis strategy was used to get an impression of the residents' everyday life. RESULTS: The residents spend most of their time in the common living room. The common living room has an ambiguous boundary between the public and private spheres, unlike the clear boundaries characterizing a home. The relationship among the residents is fragile, and the residents who can, withdraw from the common living room. CONCLUSIONS: Despite having single rooms and more home-like interior decoration, the residents in nursing home still have reduced opportunity to develop a private everyday lifestyle. The long-term unit examined in this research had a forced relationship between the residents, and the residents with best health resources systematically withdraw from the common area to control both where and with whom they wish to spend their time. RELEVANCE TO CLINICAL PRACTICE: This study lays the foundation for rethinking daily routines in long-term units in nursing homes. One way to realize the idea of the nursing home as a home could be to define the living room as a clear public area and to give the residents a chance to develop a more private lifestyle by alternating between their private rooms and a public common living room.
10. Richard L Peck. **Reaching out in many ways**. *Nursing Homes*. Aug 2006. Vol. 55, Iss. 8; pg. 61	The concept of retirement in the Jewish community is no more homogenous than it would be for any other religious or ethnic group. At least that was the thinking behind the interior design of The Cedars, a replacement CCRC combining 230 skilled care beds, a special needs unit, and 46 residential care assisted living units. The community offers no fewer than 12 distinct settings representing natural environments throughout the world, evoking such localities as The Harbor, The Tropics, The Mediterranean, The Courtyard Garden, The European Garden, and The Oriental Garden. Each area is set up as a household, with its own living, activities, and dining areas. One unifying theme, however, was the concept of making the community both welcoming and dignified. Residents are provided with relaxing, home-like sitting areas in spaces located closer to their living quarters.

11. Farvis M. **Clinical update. Residential aged care and a home-like environment**. *Australian Nursing Journal*. 2003 Nov; 11(5): 3p	In a residential aged care setting, where the stay of clients is expected to be long term, the provision of a home-like environment assumes great importance. An atmosphere reflecting a home-like environment is probably the most desirable and sought after characteristic in an aged care facility, but such an environment is not easy to achieve. This article discusses the many intangible threads that must be woven together to create an ambience of welcoming reassurance and security.
12. Boyd C. **Residents first. A long-term care facility introduces a social model that puts residents in control.** *Health Progress* 1994 Sep;75(7):34-9, 50.	In the late 1980s, leaders at Providence/Mount St. Vincent, Seattle, decided to scrap the traditional medical model of long-term care and create an environment directed by the residents. The traditional system in nursing homes is designed to foster dependence. Our new social model, in contrast, is almost entirely directed by resident preference and need, and it places a high value on human interaction. So far we are having the most success with our assisted living program, which is built into apartment living as part of the rent. All services are available to all residents when they need them. The residents are forming warm relationships with resident assistants, and the flexible, nonmedical help they receive allows them to age in place. The nursing center has been divided into "neighborhoods" of about 20 residents, each with its own staff. A cross-trained, highly capable staff is essential to support resident independence and choice. In one experimental neighborhood, nonmedical tasks that nurses have traditionally done are now being reallocated to resident assistants, who are paid half as much as nurses. The physical heart of every remodeled neighborhood will be a kitchen, as we strive to create a homelike environment. Purposeful activity is replacing therapy in a void. And residents with cognitive impairments are gradually being integrated with more cognitively aware residents. We believe that in the long run, resident-directed care will be less expensive than the medical model.
13. Thomas WH. **Building homeness into existing long-term care facilities**. *Journal of Healthcare Design* 1998;10:57-61	This article examines the obstacles to implementing the Eden Alternative and key components to success. Thirty percent of Americans would rather die than go and live in a nursing home institution. The article advocates that we need to strive to create a nurturing environment where human growth takes place. The article discusses three plagues in every long-term care facility: loneliness, helplessness and boredom and how the Eden Alternative as a model of care addresses these three elements. The Eden Alternative association looked at staff absenteeism, turnover, medication use and hospitalisation in those nursing homes that had adopted the model. In the span of 15 months after adopting the philosophy, they found statistically significant improvements in all those areas including a 66 percent reduction in skin breakdown.

ATTACHMENT 5

FURTHER RESOURCE INFORMATION

Vision Australia, Accessible Design for Public Buildings

Vision Australia has developed a fact sheet which details "accessible design for public buildings". The Fact Sheet is available online at:

http://www.visionaustralia.org.au/info.aspx?page=721

The Fact Sheet covers:

- General design Principles
  - A logical layout
  - Lighting
  - Use of contrast
  - Internal acoustics
- Tips for Specific Aspects of Accessible Design
  - Transportation and parking
  - Pathways
  - Main entrances
  - Floor surfaces and coverings
  - Walls, ceilings and doors
  - Stairways, ramps and other hazards
  - Tactile Ground Surface Indicators (TGSIs) - AS/NZS 1428.4
  - Furnishings, facilities and controls
  - Lifts
  - Signage
  - Communications
- Related Resources
- Recommended Reading

Vision Australia also provides the Access Consulting Service which is specifically focused on enhancement of the built and pedestrian environment for all users, including people with disabilities. Further information is available at: http://www.visionaustralia.org/