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I find, overall, the new hospital is a huge advance compared to the old psychiatric ward and the old hospital. It’s modern. It’s, in the main, well designed. It’s a very pleasant environment to work in. There are some exceptions to that, which I’ll go into. I find, on the whole, the staff like working here because there’s a lot more space. …

Nurse

The new Bendigo Hospital, completed in 2017, differs significantly from the previous hospital facilities and has been identified by Exemplar Health and the Victorian State Government as being of particular interest in terms of its design impact. The Design for Wellbeing Research Project focuses on the Psychiatric Service inpatient units. In the new hospital, the service has purpose-built and larger facilities and provides inpatient and some outpatient care for patients with a range of psychiatric conditions living in the Loddon Campaspe, Southern Mallee Area Mental Health Service catchment. A new model of care has been introduced that successfully co-locates and integrates acute, aged care, secure extended care and parent-infant care in bed-based psychiatric services delivered on one site. This is a fundamental shift from the previous model and is also unique in Victoria. This presented an outstanding opportunity to study the move of a Psychiatry Department to designed facilities, the evolution of its co-location with other clinical departments and hospital services, and the addition of a new Parent and Infant Unit (PIU) to a suite of 4 psychiatry units, joining the Adult Acute Unit (AAU), Extended Care Unit (ECU) and Older Person’s Unit (OPU).
Design for Wellbeing (2016-19) investigated the impact and outcomes of this shift, relating to the new design, and the new model of service delivery and care, through an in-depth qualitative study undertaken with 152 research participants, including patients, staff and visitors in the old and new hospital settings. This report presents new knowledge and insights into the impact of the new hospital design on staff, patient and visitor experience, its successes and its challenges and limitations, which can be used to inform future projects. The report:

- Highlights site-specific successes and opportunities based on the experiences of patients, staff and visitors.
- Provides transferable insights from the design and occupation of the new Bendigo Hospital relevant for future hospital design.
- Makes recommendations for future hospital design briefs and change management.

Context

The Bendigo Hospital design and development was guided by the New Bendigo Hospital Project Functional Brief (a document provided by the State Government procuring body to the Project Consortium). This included the Psychiatric Unit and is underpinned by the Unit’s model of care and the guidance of the State Psychiatrist and representatives of Victorian State Government.

The Functional Brief is a comprehensive document that outlines both the material and spatial design elements of the various units, and the ways that these will inform and facilitate practices of care within the Unit. This is for both the internal and external facilities. Extensive consideration is made in the document for various aspects of patient and staff wellbeing, sense of identity and the creation of community. This document and the design outcomes from it are intended to support a new Model of Care for the Psychiatric Unit, this is a move away from an observational model of care to a non-observational one in which staff circulate within the spaces of the different wards. This has particular implications for the ways in which spaces are used, visibility and proximity between carers and patients. As with all design projects, the development and implementation of the brief was a complex, adaptive and iterative process that integrated design intentions and needs specific to the intended user groups, requirements of governing regulatory authorities and innovations in meeting these needs and requirements. In addition to the design brief that informed the building, landscape and interior design, an extensive and ongoing consultation process enabled staff input into the design process, which was incorporated in relation to the requirements of State level and local regulatory and budget considerations (See Diagram 1). Outcomes of this design and consultation process have resulted in numerous innovations and recognition of best practice - for example, the patient bedroom for the Bendigo Hospital is now the Australasian Guideline Standard.

Our research team interviewed the project Architects (Silver Thomas Hanley - STH Health Architecture, August 2016), and the Landscape Architects (Oculus Landscape Architecture and Urban Design, August 2016). Insights from them are accounted

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1 The findings of this report are based on the opinions and experiences of research participants, and academic analysis. Participants had differing experiences of the new hospital design and took differing views in ongoing debates concerning models of care in psychiatry, and the medicalisation of mental health. The views expressed in this report are, therefore derived from the research and do not express those of any organisation involved in this research.
for this report. Representatives from the Victorian State Government were unavailable for interview during this phase of the research. However, the State Government regulatory requirements, which were central to framing the design outcomes, were reflected in the design brief to which we had access, and these are represented in this report where relevant.

The New Bendigo Hospital
WHOLE OF PROJECT DESIGN PHASE & PROCESS

Diagram 1: Diagram illustrating the design process and user group interaction.
## Research Methods

**Design Anthropology:** We took a Design Anthropology approach to understand the human and user experience of buildings, interiors and services. This focuses on people’s sensory and emotional experiences of everyday material, technological and social environments. It accounts for: how these impact on people and how they adapt to new circumstances; how people creatively improvise to make themselves feel comfortable (physically and emotionally) in their environments; and how they participate in creating the everyday atmospheres they inhabit and when they cannot. The approach analyses the implications of these experiences and activities for future design and the co-design possibilities that they demonstrate.

**Sample:** A total of 152 people participated in our study. We have deidentified all participants by using only the following categories to denote participants’ roles in the report.

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nurses (Including Unit Managers, students and all nursing team)</td>
<td>70</td>
</tr>
<tr>
<td>Domestic Services (including cleaners, food service staff, Spotless management, security services)</td>
<td>16</td>
</tr>
<tr>
<td>Allied Health (including social workers, occupational therapists, spiritual care, legal team)</td>
<td>13</td>
</tr>
<tr>
<td>Admin (including ward clerks, medical secretaries and executive)</td>
<td>9</td>
</tr>
<tr>
<td>Medical Staff (including Registrars, Consultants, and Medical Officers)</td>
<td>17</td>
</tr>
<tr>
<td>Patients (from all the Units)</td>
<td>18</td>
</tr>
<tr>
<td>Visitors (from all the Units)</td>
<td>9</td>
</tr>
</tbody>
</table>

**Ethnographic methods:** To undertake this research we used a range of ethnographic research methods as appropriate to each situation and context. In stage 1 we spent 30 researcher days in the old psychiatric units. In total, in stage 2 we spent 49 researcher days (over 31 days) in the psychiatric units to undertake the interviews, and to experience the rhythms, routines, and sensory and affective atmospheres of each unit, as these changed throughout the day. Where appropriate we used photography and video as part of our interview processes. Our methods were designed to gain understandings of those aspects of being in the Units that are fundamental to everyday experience but are infrequently reported verbally in research or consultation situations.
Key Findings

Overall the ambitions of the Functional Brief for the Design of the New Bendigo Hospital have been achieved. The design of facilities and infrastructure have supported the realisation of the better patient and staff experiences of the facility and the new model of care. Psychiatry staff and patients have adapted well to the new Bendigo Hospital and co-location in the new precinct has improved many aspects of the experience of care for psychiatric patients and their visitors and for staff. However, as is to be expected, the occupancy of the building has also revealed a number of new building and service design elements that staff and patients have found difficult to adapt to.²

Since the completion of our research ongoing maintenance and building variation works have been undertaken, and therefore some aspects which staff and patients had found harder to adapt to will have been modified. This is one of the challenges of undertaking such research in a live project and a new build.

Site-specific findings

Sensory and Emotional Experiences

**Pride in the buildings:** The new hospital building, the atrium and the gardens were described as ‘impressive’, ‘spectacular’, ‘beautiful’, ‘modern’ and ‘clean’. Participants felt proud to be associated with the hospital and were universally positive about these aspects of the building.

**Stigma:** participants felt that the new hospital design provided a setting in which the stigma associated with psychiatry was being reduced. This occurred through staff sharing ECT care with other departments and collaborations between Units. However, stigma was more strongly felt in PIU.

**Safety:** Staff and patients felt safer in the new hospital than they had in the old hospital, but identified improvements that could build on this in High Dependency Units. This sense of safety was attributed to the closer presence of security staff, the new safety technologies, the lighter environment and the more spacious facilities than the previous ones. These sensory and visual aspects of the feeling and experience of safety are often unspoken but fundamental elements of everyday working lives.

**Community:** In the new Units staff were successfully creating a new sense of community, which they had feared would be lost when moving. Clinical staff still felt part of supportive communities, and had found the hospital easier to adapt to in this sense. The loss of a sense of community was felt most strongly by service staff who were now employed and managed by Spotless.

**Homeliness:** Participants felt that the new hospital had a more clinical and less homely feel, due to the white walls, and less personalisation and decoration. Supporting staff in the adoption of new procedures for wall displays, and the procurement of and use of kitchen equipment would aid in the management of such change processes.

**Co-location:** The co-location of the Units and ECT service alongside other clinical and service units in the new
hospital was understood by most participants to have been successful and to have contributed to staff and patient wellbeing. Co-location provided the psychiatry units with better access to hospital services, and stronger connections to other Units. Staff benefitted from greater contact with other staff. Co-location was also seen to participate in the wider process of destigmatising psychiatry within the medical system. The dominant view was that stigma was decreasing.

**Light:** the experience of the natural light and interior lighting in the four Units was considered to be a great improvement on the previous accommodation and generally a great success. Light was a key category through which participants discussed the improved wellbeing and safety elements of the new hospital.

**Colour:** Staff and patients’ experiences of the colour of the Units varied. Some found the particular white colour chosen to be soothing and pleasant, some appreciated the neutrality and clinical feel of it. Staff generally wished for more colourful walls and colour coded areas in order to mitigate the ‘clinical’ feel of the white walls.

**Sound:** The hospital soundscape was the most challenging element of the transition that staff and patients had encountered and which they regarded as problematic for staff and patient wellbeing. Although the previous units were also considered noisy, staff and patients identified the sensory disruptions of sound in the new hospital as: doors slamming; the PA system announcements (resolved after the initial testing period); door alarms; phones ringing; personal alarms; and the ‘echoey’ building acoustics.

**Temperatures** and their regulation were experienced as improved from the previous facilities and clinical staff had found maintenance staff helpful in solving some temperature problems. In the absence of being able to control temperatures themselves, clinical staff often improvised to do so.

**Visual wall displays:** The use of walls to display information, motivating messages and for community building had been prevalent in the previous facilities and was seen as important for wellbeing. In particular in longer stay Units and those where patients were in need of ongoing information delivery, staff and patients had found it difficult to adapt to new procedures for the display of visual communication.

**Buildings, Units and Rooms**

**Arrival:** On arriving in the building most staff we interviewed took the lift to the second floor. This was because the Kronos staff check-in machine was placed next to the lifts, which staff identified as de-motivating them from using the stairs.

**Corridors:** Staff, patient and visitor experiences and uses of the psychiatry corridors varied according to the interior decoration and lighting of corridors. The light and murals of the OPU corridor were greatly appreciated. While participants found their experience of corridors without natural light challenging, we identified examples of good practice and opportunities to co-design such corridors as spaces of wellbeing.

**Offices:** Staff welcomed the availability of shared office space, and appreciated its layout and co-working opportunities. However, the sound levels of the space and privacy issues this presented were challenging, in both the old and new hospitals.

**Staff common room:** this was appreciated and used by staff, who enjoyed meeting colleagues there, and used the microwave and TV. Staff who found the common room noisy sought quieter spaces for their breaks, to debrief from difficult situations or relax and disconnect alone in a calm environment, including using meeting rooms, interview rooms, quiet rooms and outdoor spaces.

**Spaciousness:** Participants emphasised the spaciousness of the new units, and the wellbeing and safety benefits for patients and staff. Some staff felt unsafe where there were no sightlines from nurses’ stations to patient common areas, bedrooms, corridors and courtyards. These design aspects had followed the new, non-observational model of care.

**Patient’s bedrooms:** The new ensuite bedrooms were experienced as a great improvement on the rooms in the old facility by patients and staff. The spaciousness, views, light and furnishings were appreciated, as was the privacy they offered. However the sensory interruptions of the noise from the doors hindered this environment and patients’ sleep. The new bathroom
doors were appreciated by patients and staff for their privacy and safety features. While patients appreciated the safety designs they found the windows slow and complicated to operate, and anti-ligature fittings in the bathroom difficult to use.

**Common areas:** These were experienced as a great improvement on the old facility and had multiple uses which varied across the Units. Patients enjoyed relaxation and activities in lounge areas, appreciated the light and views and watching TV. The quiet rooms had multiple uses, as smaller lounges, to receive visitors, where patients could undertake quiet activities alone, for work with OTs and as additional interview rooms. Staff wished for more such rooms.

**Sensory rooms:** It has been challenging for staff to adapt the quiet rooms into the equivalent of the valued good practice sensory rooms used in the old facility, due to the multi-use expectations and needs for the quiet rooms, new procedures for decorating rooms and walls, inability to switch off TV monitors and furniture limitations. Elements of a sensory room had successfully been developed in OPU, and a locked quiet room was used for sensory modulation in ECU.

**Interview rooms:** These were well received as functional and practical spaces, which were appropriately spacious and had been designed with psychiatry in mind. They were used for interviews and staff meetings in some cases.

**Outdoor courtyards:** Courtyards are a very successful element of the new hospital design, and generally treated as a patient space. They provide light and fresh air to the Units and offer patients opportunities to access outdoor space. Uses vary across Units: in AAU LDU, courtyards have a social and relaxing role for patients; in AAU HDU courtyards are used for patient interviews; in ECU, courtyards are used for patients’ quiet time alone; in OPU successful gardening activities have been developed. Bowling equipment in AAU has been successful but exercise bikes are experienced as cumbersome. Staff use courtyards to interview patients when appropriate for patient needs and privacy.

**Nurses stations, receptions and medication rooms:** These are adjoined and used in relation to each other. The new open reception areas were considered successful in enabling patients to have direct communication with staff and feel attended to. They were considered a great improvement on the previous facility where staff felt they were in a ‘fishbowl’ and patients felt they could not always get staff attention. The windowed internal areas of the nurses stations in AAU, ECU and OPU offered transparency which was experienced as creating more comfortable relationships between staff and patients and for patient wellbeing, and as improved staff work areas. Within the nurses’ stations staff used managers’ offices and medication rooms for privacy. However the greater visibility of staff also created privacy issues in AAU, as did the open PIU nurses station. Staff resolved this by using medication rooms for private and quiet conversations and for breaks from their stressful working environments.

**Kitchens:** Kitchen facilities, design and location varied across Units, and impacted how staff and patients could use kitchens for wellbeing activity. In AAU, staff had found adapting to the new use of kitchens for food serving to be challenging and wished for facilities and possibilities to use the kitchens for wellbeing activities; ECU provides an example of design and availability of kitchen and dining space for generating forms of well being and living skills activities and community building at meal times; the PIU kitchen was very effective for living skills and meals for families; in OPU, the staff were working to adapt practices to the new kitchen facilities and hoped to reintroduce living skills activities and breakfast groups which had been successful in the old hospital.
Services

Food services: Services and food quality were seen as improved. However, the new schedule and safety regulations relating to temperature and reheating of food were not always consistent with the unpredictable routines of psychiatric patients, due to their clinical needs or childcare obligations.

Cleaning service: New cleaning services had adapted to the cultures of different units with different levels of success. The more successful example involved continuity of the cleaning role from the previous facility and the engagement of the cleaner in the life of the Unit in collaboration with nurses, an arrangement which had worked well in the former facility. The more challenging situations in the new hospital arose when cleaners who did not usually work in psychiatric care were seconded to more tense psychiatric units.

Maintenance services: An ongoing relationship has developed between patients and clinical staff on the one hand and between clinical staff and maintenance staff on the other, as the process of discovering items that need to be changed or fixed has proceeded as patients and staff have settled into and occupied the Units. This has developed into a fruitful collaboration through knowledge sharing and discussion.

Pharmacy services: The move to the new site has had positive consequences for staff and patients in relation to pharmacy services. The use of the chute system has increased safety and convenience for staff and reduced waiting times for patients.

Design Process

Building design and service design: New Building and Service design are generally experience as working well in relation to each other. Examples include the success of co-location, with the improved access of the co-located psychiatric units to security, maintenance, pharmacy and other services. This has enabled productive relationships between services leading to improved feelings of safety for staff.

Complex and enduring challenges: The clearest examples of these are manifested in three key questions that are particular to psychiatric care which are difficult to reconcile with a hospital environment: patients smoking; the relationship between the clinical and the homely; and the noise created by safe door designs.

Consultation: A rigorous consultation was carried out involving extensive user group sessions with direct representation from each department (see Diagram 1). Nevertheless, many staff felt that the ways they work and their needs had not been accounted for. We suggest that while consultation provides a valuable role, its methodology does not enable staff to communicate the everyday and experiential elements of their work practices and their own and patients’ needs, because these are often ‘felt’ and routine activities and experiences, which are not revealed in consultation processes.
Transferable insights

The following insights respond to our research questions, and outline the relevance of our findings for hospital design more generally:

**Sound:** While sound design was integral to the design of the new Hospital, due to unanticipated sounds such as overhead speaker announcements, participants regarded the hospital as noisy. It should be noted, however, that announcements have significantly reduced since the time of the study as Bendigo Hospital continues to work towards its ideal of a tranquil hospital.

**Light design:** The design for daylight, courtyards and views, and indoor light in Bendigo hospital, which was a focus of the design brief and the architectural intent, has been very successful. Our research showed that it was greatly appreciated by staff and patients and associated with a range of different modes of wellbeing.

**Future preparedness of technology design:** We recommend that future hospital design focuses on designing digital communications and safety systems that are compatible with existing technologies and digital literacy. They should also be future-prepared for emerging digital health technologies.

**The relationship between building and service design:** The Bendigo hospital demonstrates examples of successes which entail wellbeing benefits in the mental health context, as well as examples where improvements can be made. Attention to the relationship between building and service design, and specifically to how these will play out when staff and patients actually use new facilities. This is also significant in relation to the everyday routines, needs and wellbeing-focused uses of particular hospital spaces.

**Avoiding complex and enduring challenges:** Complex and enduring challenges can be better addressed from the outset if both problems and existing solutions and needs are identified prior to architectural design. For example, we identified existing successful solutions to the challenges of smoking and the creation of homeliness in the old hospital. Similar challenges were also represented in the design brief. Accounting for existing successful solutions in future design can help to prevent recurring complex and enduring challenges, such as those relating to smoking and the creation of homeliness, from emerging.

**The use of Design Anthropological methods in hospital design:** In other projects design anthropological methods have successfully been tested in collaboration with architectural design, service design, sound design and technology design. In future projects we recommend that design anthropological research with staff and patients, which attends to user experience, needs and imagined and possible futures, should precede and inform the design brief.
Recommendations for future hospital design briefs

The following are additional recommendations for inclusion in future briefs for hospital design, based on the outcomes of this study. We have ordered these according to the Design Outcome categories in the Functional Brief for Bendigo Hospital specific to the Psychiatric Units:

**Accessibility**

- The new Bendigo hospital has a mixed swipe card and key system. The swipe card system was considered to be highly successful by staff, and preferable to the old key system. It is recommended future hospital designs exclusively use swipe card systems as far as is possible.
- Kronos check-in machines could helpfully be placed at the base of both lifts and stairwells in order to promote accessibility and also encourage use of stairs.

**Therapeutic Environment**

- The external courtyards were a highly successful addition, and offered flexible use to staff and patients for recreational and medical activities, such as gardening and consultations. We recommend that these are considered in future design briefs and that the extension of their use could be facilitated through additional weather protection - for instance sun and rain shelter.
- The noise caused by the opening of patient bedroom doors for required patient observations was a concern for both staff and patients because it disrupted patient sleep. Given that the noise of the locks is unavoidable, it is recommended that future design briefs stipulate the use of doors with a privacy window.
- The attention paid to acoustic design is valuable but can be disrupted in the experience of staff and patients by the noise of all safety and airlock doors in the facility. While this is a complex problem to solve, we draw attention to it because it was consistently raised by staff and patient participants.
- Therapeutic kitchen-based ‘living skills’ activities were highly valued by staff and patients. We recommend that the site and client specific resources and design for these are defined in future design briefs and attended to.
- The enduring issue of smoking was acknowledged in the Functional Brief, however it was not able to be carried through into the design due to regulatory restraints. Our research found that smoking was inevitable, and was also perceived to play an important role in supporting patient wellbeing, enabling staff to maintain a positive therapeutic environment, and in the generation of social bonds and community building. On the basis of our research, we urge recognition of this in future design briefs in order to provide a stronger basis from which designers can explicitly address the design and health problems associated with smoking.

**Flexibility and Adaptability**

- Staff would benefit from additional quiet staff break rooms close to their Units. These are needed for quiet debriefing after difficult events, and to provide a calm environment for staff to take breaks in. They should be provided in addition to the social lunch and ‘collaboration’ staff room. They should be equipped with appropriate facilities.
- Availability of flexible rooms for consultation besides the designated interviews rooms to provide formal as well as informal environments, ideally with access to natural light and fresh air.
• Designs can be left sufficiently open to enable staff and patients to creatively reproduce activities and spaces that represent the core values of homeliness, community and care.

• A temperature system that can be controlled for each space by users (e.g. in bedrooms, offices, and nurse stations).

Safety and Security

• The Functional Design Brief for the Bendigo Hospital was developed for a new non-observational model of care which the Hospital Operator (Bendigo Health) was to implement. This was effective in most Units with the exception of the High Dependency Units, where there were challenges in implementing changes to the new operational model. These were related to perceived issues of staff and patient safety stemming from changes to sightlines and surveillance. It is recommended that in future hospital projects a more effective and sustained process to embed new models should be considered.

• We recommend that safety-based window and blinds designs are generic and consistent and simple so that they can be used universally across all Units and by staff and patients.

• Gender fluid patients should be considered in future design briefs in relation to the design of gender separation.

• Technology devices for patient use, unit aesthetics and ergonomics should be age appropriate and sensitive to patients’ particular needs, such as motor, visual and hearing impairment, dementia, literacy, or difficulties in communication. This is particularly important for the OPU where people may be less familiar with newer technologies.

• Technology devices for staff safety and security are essential in the context of a non-observational model of care. The research acknowledges the use of the current communication and duress device as the best available on the market; however, there are still improvements that could be made in terms of helping staff feel safe in their duties.

Recommendations for future change management

The following recommendations refer to Change Management processes that are linked to the occupation of future buildings. They particularly refer to people and processes and to staff wellbeing and empowerment in the workplace:

• Empower staff to effectively use new procedures for decoration and wall displays to generate wellbeing and a sense of homeliness. We recommend: 1) ensure that staff are fully cognisant with the processes required for wall displays, the content allowed and the use of windows and other surfaces and that they feel engaged with the reasons for these; and 2) ensure that these processes and the new materials that are used for them are available and presented as enabling and supportive, rather than as rule-based.

• Ensure that staff can participate, through appropriate procedures, in the management of temperature control in units, offices and bedrooms.

• Where possible limit the frequency and sound levels of PA communications and safety announcements (e.g. phone alarms) to only those essential to the Psychiatry Department.

• Ensure that staff are aware of the qualities and benefits of the specific materials selected for the carpets and furniture, particularly in relation to cleaning.

• Ensuring that new catering arrangements and the use of kitchen facilities for therapeutic activities are coordinated and new uses are understood. Create flexibility regarding the use of kitchen facilities to ensure that staff can offer snacks to patients who miss meals due to their treatment routines being incompatible with catering timetables.

• Shared use of computers at offices and nurses stations would benefit from management strategies to ensure all staff have a space to record their notes, particularly at the busy times of handover when nurses, registrars and consultants all share the space.
Wherever possible enable continuity of teamwork between service and clinical staff during and after the transition process to a new facility, in such a way that acknowledges the role of catering and cleaning staff in creating a sense of wellbeing.

Ongoing consultation regarding change management will help engage staff who were not part of the earlier engagement processes or did not work in the previous facility. This will assist in empowering staff to adapt successfully to the new environment and ways of working.

Appendix

Research questions

The Design for Wellbeing project was shaped around 6 key research questions.

1. How are the different designs of the old and new hospital buildings experienced by staff and patients as sensory, emotional and social spaces? How are the staff and patients impacted on by these designs, how do they use them and how do they appropriate them, what are their limitations and benefits?

2. How do staff and patients experience and engage with the delivery and use of services in the existing and new hospital contexts? What is the impact of the spatial and co-located elements of the design of the service on the experiences and forms of engagement of staff, patients and visitors?

3. How does the design of the buildings, interior and services combine to create particular experiences for patients and staff? What kinds of configurations are most beneficial for staff and patients? What can we learn about the way these elements need to be designed in relation to each other?
4. In what ways do patients and staff believe that the environment and the design of the service delivery impacts on patient treatment and recovery? Note that we will not investigate any clinical aspects of the impact of this shift.

5. To what extent and in what ways are staff and patients engaged informally and formally in how buildings, interior and service designs are made operational and meaningful? What kinds of improvisation are happening around the designs, to what extent in the specific context of a hospital environment are these possible, and what benefits do they bring?

6. Which elements of the insights drawn from the evaluation of the Bendigo hospital design are site specific and which can be transferred?

These were expanded through 6 further themes which emerged as key questions for comparison between the old and new hospitals.

1. Design elements identified as significant for staff, patients and visitors in the old site, including: windows; the doors on the ensuite bathrooms and the absence of shower curtains; the design of nurse stations; natural light, gardens and external views; visibility and sightlines through the units; and common staff office and meeting spaces.

2. The co-location of the three existing units, and the addition of a fourth.

3. The relationship between Psychiatric Services and other hospital services, both clinical (e.g. ECT, Emergency Department and Pharmacy) and non-clinical (e.g. catering, cleaning and security) including changes in the delivery of mobile services.

4. Sensory experiences of the new site, sounds, smells, temperature, and the affordances of natural and artificial light and fresh air.

5. The role of improvisation in the built environment and the day to day activities of the Unit.

6. How the values of care, homeliness and community are manifest in a new, custom-design environment.

Research participants

Of all Phase 2 participants, 63/152 (Table 1) had worked in both sites and were able to compare experiences. 89 participants (Table 2) only had experience of the new site.

Table 1

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<th>ECU</th>
<th>PIU</th>
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Table 2

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Acknowledgements

We are grateful to the hospital staff, patients and visitors who participated in our research, and to Bendigo Health and Exemplar Health for their collaboration. This study was undertaken by RMIT University, with the collaboration of Monash University, in Australia.