

# Australasian Health Facility Guidelines (AusHFG) User Survey - New Zealand

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Centre for Health Assets Australasia

Australasian Health Facility Guidelines (AusHFG)  
USER SURVEY - New Zealand

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Produced by the Centre for Health Assets Australasia (CHAA)  
The Faculty of the Built Environment, University of New South Wales.

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Jane Carthey

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## 1. INTRODUCTION

### 1.1 Background

The Australasian Health Facility Guidelines (AusHFG) are an initiative of the Australasian Health Infrastructure Alliance (AHIA), formerly the Health Capital Asset Managers' Consortium (HCAMC) of Australia and New Zealand which was formed in 2004. The AHIA includes representatives from all jurisdictions in Australia and New Zealand. One of the purposes of AHIA is to support organisations to better plan, procure and manage their health capital assets. It works across Australia and New Zealand bringing together information, research, knowledge and practical experience about developing and managing health assets and infrastructure.

In 2005, the AHIA commissioned the Centre for Health Assets Australasia (CHAA) at the University of NSW to develop nationally consistent health design guidelines for the design and construction of health facilities. These were based on NSW-focused guidelines (NSWHFG) that were in turn developed from web-based guidelines created by the Victorian Department of Health and Human Services in 2001-2002. The AusHFG have been available for use across Australia and New Zealand since December 2006. In mid 2007, NSW adopted the AusHFG as a replacement for the NSWHFG. Victoria continues to use the Design Guidelines for Hospitals and Day Procedure Centres (DGHDP) for health projects in that State.

As the AusHFG have now been in use for more than three years across most Australasian health jurisdictions, this survey will assist in assessing whether they are fulfilling the purpose for which they were developed, and how they may be improved as they continue to be reviewed and developed into the future. This survey was completed for **New Zealand projects only** and has subsequently been extended to other AHIA jurisdictions – NSW and South Australia. The results from New Zealand are applicable to most AHIA jurisdictions especially when combined with the responses received in the other two jurisdictions.

### 1.2 Intent of the Survey

The AusHFG are intended to be used on all Australasian public health projects. They are also applicable to private sector projects but the extent of this use is unknown. Therefore, background information was collected regarding which professional groups are mainly using the AusHFG, on approximately how many projects they have been used; at what stages and on what types of projects (public/private; greenfields/refurbishment) they are being used.

The AusHFG are intended to be easily accessible via a publicly available website and are free to download and use. A peer review process is used in their development. Survey questions were asked to identify user satisfaction with the AusHFG in terms of content, format and delivery method; and potential areas for improvement.

In commissioning the AusHFG, AHIA anticipated a range of benefits from using the AusHFG on their health projects, therefore users were asked to rate their perceptions of how well the AusHFG are performing in terms of these benefits. Finally, users were asked whether they are interested in being involved with ongoing review and development of the AusHFG into the future. When they answered in the affirmative, they were asked to email their details to the representative identified by the NZ Ministry of Health (NZ MOH). All users were then thanked for their participation in the survey.

### **1.3 Administration of the Survey**

Ethics approval was granted for this research by the University of NSW Built Environment Faculty Human Research Ethics Approval Panel (HREAP) with approval number 105004 dated 24 February 2010. Specifically targeted at NZ users of the AusHFG, the survey was conducted using an online survey tool (Survey Monkey). A list of NZ-based health facility industry professionals familiar with the use of the AusHFG on NZ health projects was identified by the NZ Ministry of Health (NZMOH) and these people (35) were personally invited by email to participate in the survey. A generic web link was also generated for the survey and participants were asked to forward this to colleagues who may also have wanted to participate.

The questions focused on three main subject areas: 1) demographics of users including professional background and extent of use of the AusHFG on NZ projects; 2) satisfaction with the format, content and mode of guideline delivery; and 3) assessment by users as to whether the AusHFG are achieving the benefits anticipated by the project funding bodies when they originally agreed to the initiation of the AusHFG project in 2005. The survey asked 25 questions, all of which required a response for progression through the survey. In addition to closed questions (usually multiple choice), there were opportunities provided for participants to provide additional comments throughout the survey. All responses were kept confidential and consolidated results only were analysed. Thirty-nine people responded to the survey (27 by invitation – 69%; and 12 via the generic weblink), however only the first question confirming that the participant had read the accompanying project information was answered by 100% of respondents. The remaining questions were skipped by between two and seven respondents with an increasing lack of response as the survey progressed. This suggests that many respondents elected not to complete the survey part way through, possibly due to lack of familiarity with the subject matter. This report summarises the survey responses and highlights the key themes which emerged.

## 2. SURVEY RESULTS

### 2.1 Background of Survey Respondents

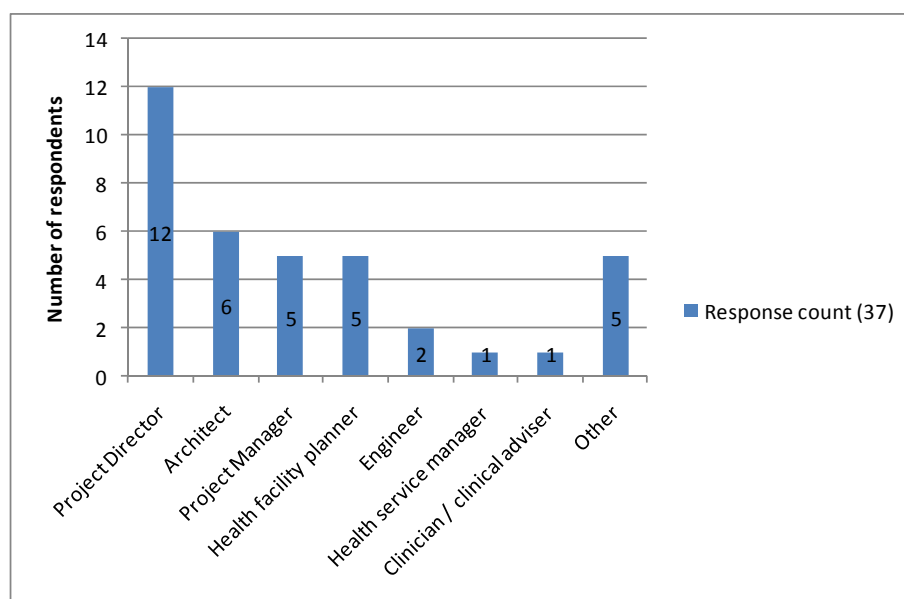
#### Practice jurisdiction

100% of respondents (37) identified that they mainly practice in New Zealand (question 1.1).

#### Project role

Respondents were asked to indicate their main role on a project (question 1.2). Project Directors were the largest group of respondents (12; 32%), but there was also good representation from Architects (6), Project Managers and Health Facility Planners (5 each). 'Other' included three facility managers, a project analyst and policy advisor. Only two 'health professionals' (health service manager, clinician / clinical adviser) responded. Given the range of professional backgrounds, respondents were likely to be knowledgeable regarding health facility planning processes and to be familiar with the AusHFG.

**Figure 1: Main role identified on hospital projects (37 responses)**



### 2.2 Use of the AusHFG by respondents

#### Private and public sector utilisation

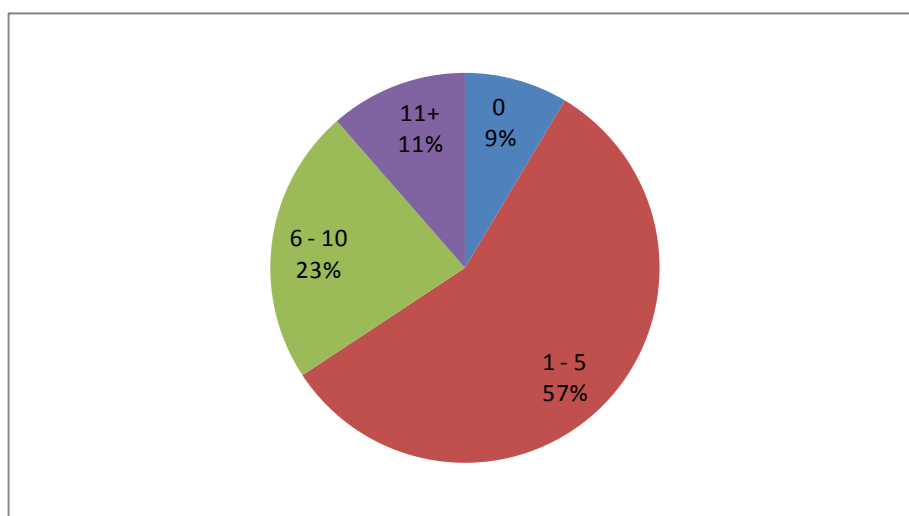
100% of respondents (36) have used the AusHFG for public sector hospital projects (question 2.1). 22% (8) have used the AusHFG for private sector hospital projects. The survey sought clarification as to whether work was predominantly in the public or private sector. Twelve of 16 respondents (75%) indicated that they mainly work on public sector projects.

### Extent of AusHFG utilisation

The AusHFG were launched in December 2006. Feedback was sought on the extent of utilization of the guidelines since that time (question 3.1). 57% (20) of respondents had used the AusHFG on between one and five projects. 34% (12) had used the AusHFG at least 6 times and a small number had used the guidelines in excess of 11 times.

Three respondents (9%) indicated they had not used the AusHFG on any projects (Architect, Facilities Engineering Manager, Health Service Manager). In subsequent responses however, the Architect showed familiarity with the AusHFG and indicated they had been used in Pre-design/feasibility/ project briefing and Design phases. It appeared that the remaining two respondents were not familiar with the AusHFG and did not answer the remaining questions relating to the structure, content, quality etc (questions 8 to 25).

**Figure 2: Number of hospital projects on which respondents have used the AusHFG used since December 2006**

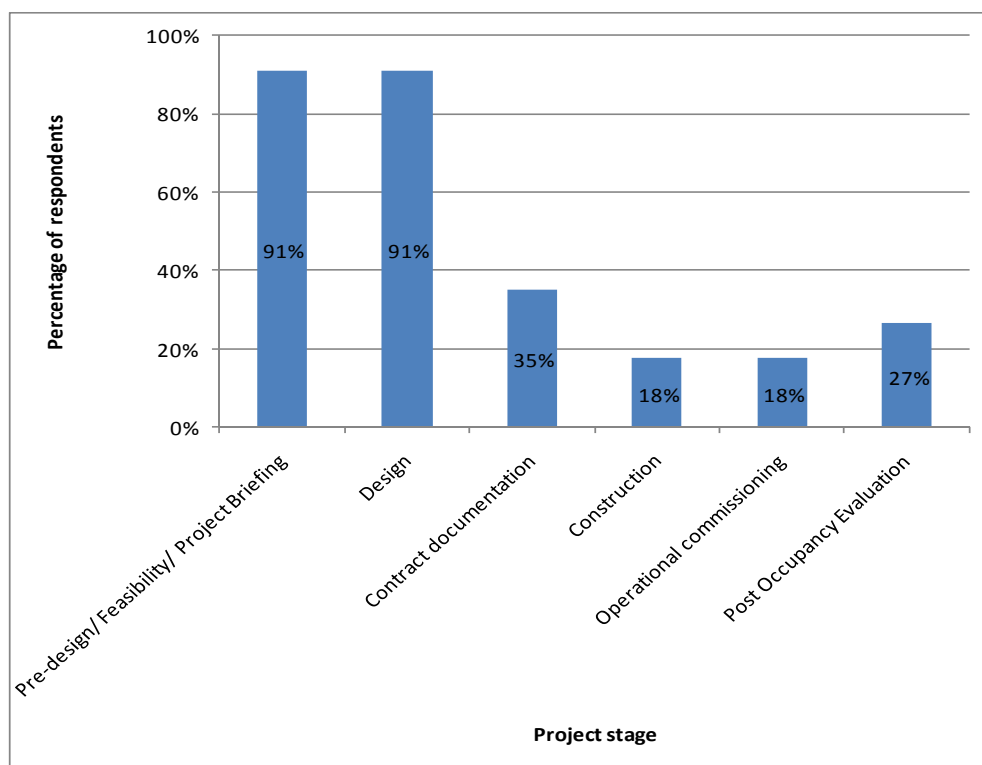


### Project stages at which the AusHFG is used

Respondents (34) were asked to indicate all project stages at which they had referred to the AusHFG (question 4.1). The AusHFG were most commonly consulted by respondents (34) at the Pre-design/ Feasibility / Project Briefing stage and the Design stage (91% of respondents respectively). They were least likely to be used at Construction or Operational Commissioning (18% respectively).



**Figure 3: Summary of project stages at which respondents used the AusHFG for hospital projects**



The following table reviews utilization of the guidelines for the four roles that respondents most commonly identified themselves as fulfilling on hospital projects. 100% of Project Directors, Architects and Health Facility Planners used the AusHFG for the Design phase and recorded high use for the Pre-design/ Feasibility/ Project Briefing phase. Architects did not use the AusHFG for Operational Commissioning or Post Occupancy Evaluation, probably because they have little or no role in these project stages, but the AusHFG were used by Architects to assist Contract Documentation. Project Managers were most likely to refer to the AusHFG for Operational Commissioning and Post Occupancy Evaluation. Whilst the number of respondents was low, Project Managers indicated the potential value of using the AusHFG in the Operational Commissioning and Post Occupancy Evaluation stages of projects.

**Table 1: Utilisation of AusHFG according to the four most commonly identified main roles on hospital projects**

Project Stage	Project Director (12)	Architect (6)	Health Facility Planner (5)	Project Manager (4)
Pre-design/ Feasibility/ Project Briefing	92%	83%	100%	100%
Design	100%	100%	100%	75%
Contract documentation	42%	67%	20%	50%
Construction	17%	33%	20%	25%
Operational commissioning	25%	0%	20%	50%
Post Occupancy Evaluation	33%	0%	40%	50%

( ) indicates number of respondents.

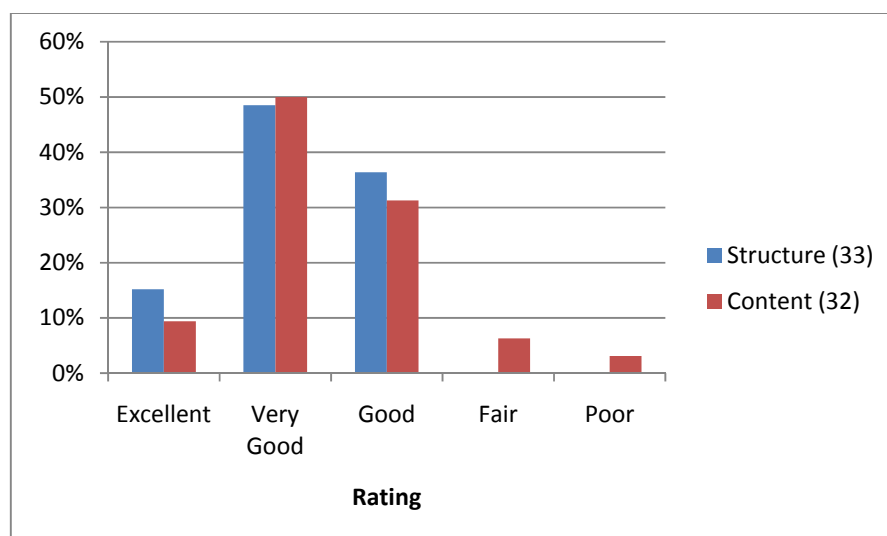
### Project type

Question 5.1 sought feedback on the types of projects on which the AusHFG have been used. The majority of projects for which the AusHFG were used were a mix of new build/ renovation/ refurbishment (91% of respondents, 31 responses). 65% of respondents (22 responses) had used the AusHFG on renovation/ refurbishment projects. 56% of respondents had used the AusHFG on greenfields/ new build projects (19 responses). It is evident from these responses that application of the AusHFG needs to be sufficiently broad to accommodate the needs of projects that incorporate existing buildings.

## 2.3 Satisfaction with AusHFG

### Structure, Organisation and Content

Survey participants were asked to evaluate the overall structure and organization of the AusHFG (question 6.1), as well as the quality of the content in assisting project briefing and design processes (question 7.1). The results are shown in figure 4.

**Figure 4: Evaluation of overall structure and content of AusHFG**

Generally responses to both aspects were positive. 100% of respondents (33) rated the structure and organization of the AusHFG as 'good' or better, compared with 91% (32) who rated the content as 'good' or better.

64% (21) of respondents agreed that the overall structure and organisation of the AusHFG is 'very good' or 'excellent'. The remainder (12) rated the AusHFG as 'good'. Five out of the six Architects who responded to the survey rated the AusHFG as 'good'. Amongst the comments that were provided, two respondents commented that:

- *Guidelines need to be more user-friendly and easy to follow.*
- *Cross referencing in the Indexes could be improved.*
- *Sometimes it takes a long time to find the specific section you are looking for. Maybe some user friendly hot links in the table of contents could be included.*

In relation to AusHFG content, those who gave a rating of 'excellent' or 'very good' seem to have used the AusHFG on more projects, which suggests increased familiarity and perhaps a greater level of comfort with the content.

The three respondents who rated the content as 'fair' or 'poor' were engineers (2) and project director (1). Interestingly these same respondents rated the structure of the AusHFG as 'excellent' or 'very good'. A number of comments recorded below do highlight concerns about inadequate engineering services content.

The following comments were made by respondents in relation to AusHFG content.

- *The AusHFG provides excellent information for a health planner, but is lacking technical information for building services engineers. References to other documents which contain technical information are helpful.*
- *NSW Health TS11 is an excellent document that designers can refer to and take guidance from. The AusHFG should offer an equal benefit to designers.*
- *Quantitative guidelines on some aspects of engineering should be included and easily found in the documents e.g. what allowance for travel and engineering/plant.*
- *General content is very good, however more difficult items are the hardest to address in a standard manual.*
- *The AusHFG should include more reference to evidence based design and discussion of outstanding or ambiguous research questions relevant to design.*
- *HPUs need to be strengthened to provide better planning information on clinical support and general support services. Information on equipment and fixtures is a particular weakness.*
- *A quick reference method for downsizing guidelines to the size of unit being planned would assist.*
- *The volume of material included can make the AusHFG daunting.*
- *One needs to be careful that the generic standards outlined in AusHFG do not lower or unnecessarily raise the standard of project outcomes (e.g. AusHFG lagging behind best practice or changes in technology; inclusion of unnecessary features in order to conform to AusHFG).*
- *Development of more HPUs is desirable.*

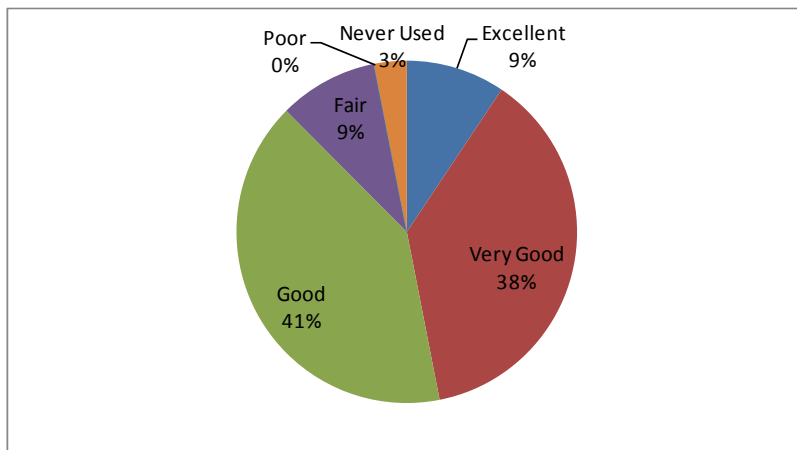
## **Content of Part A - F**

Survey participants were asked to rate the content of the various elements of the guidelines from Part A through Part F (question 7.2). Tables summarising the responses (32) follow. Overall, Parts A and B were perceived to have the highest quality content of the various sections. Parts A and B were the only sections for which a rating of 'excellent' was awarded by participants.

### **Part A**

- 47% of respondents rated Part A as 'excellent' or 'very good'.
- 41% considered the content to be 'good'.

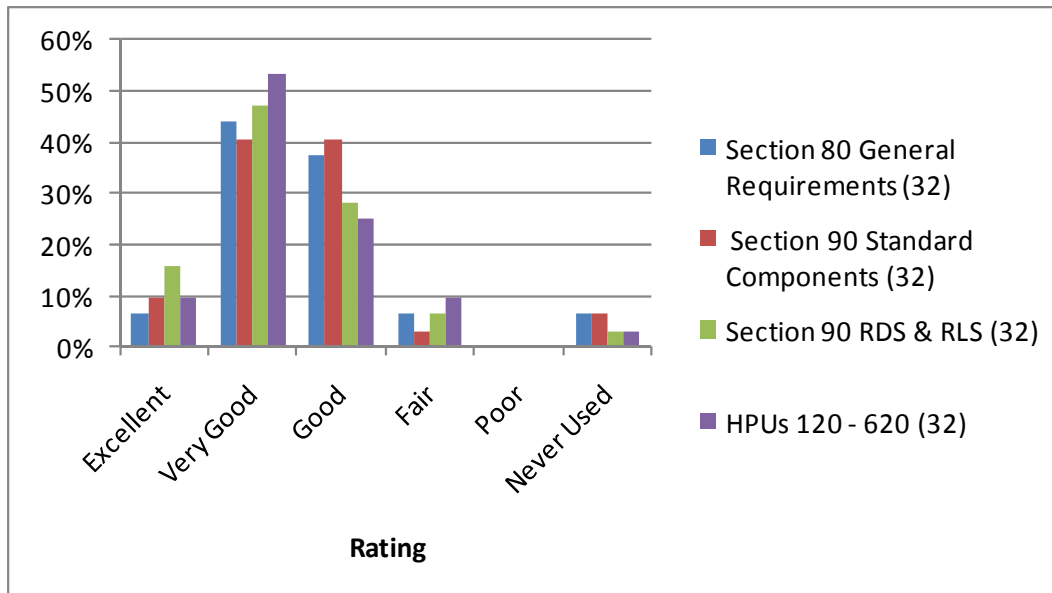
## **Figure 5: Evaluation of Part A: Instructions for Use (32 responses)**

**Part B**

Of all the sections of the AusHFG, Part B received the most positive overall ratings. Part B contains information relating to overall planning principles and operational policies (Section 80), specific HPU information (Sections 120-620) and Standard Components room data and room layout sheets (Section 90). Key data are:

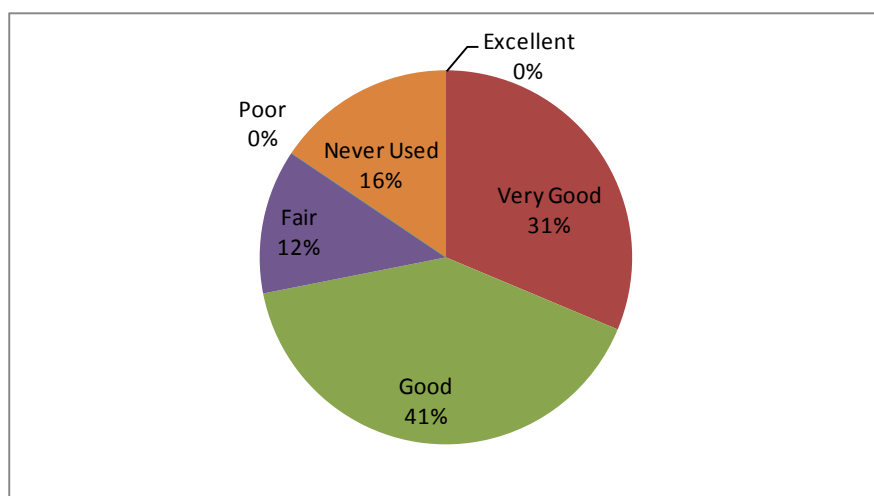
- Room data sheets and room layout sheets were rated 'excellent' by 16% of respondents. 63 % of respondents considered these to be 'excellent' or 'very good'.
- All elements of Part B were rated 'good', 'very good' or 'excellent' by at least 88% of respondents.
- No respondents rated the elements of Part B as 'poor'.
- Small numbers of respondents had not used Part B.

**Figure 6: Evaluation of Part B – General Requirements, Standard Components, Room Data Sheets and Room Layout Sheets, Health Planning Units 120 – 620**

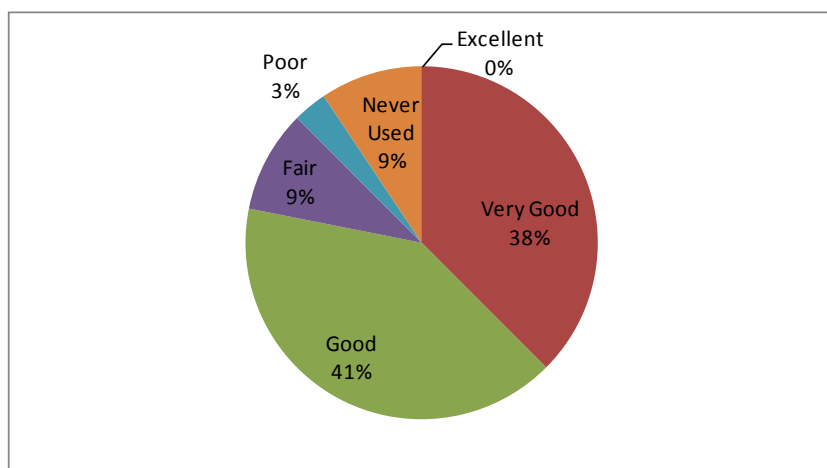


### **Part C**

- 78% rated Part C as 'good' or 'very good'.
- 13% of respondents rated it as 'fair'.
- 16% of participants had not used this section, perhaps a reflection of this information not being relevant to some respondents' role on the project.

**Figure 7: Evaluation of Part C – Access, Mobility, OHS, and Security (32 responses)****Part D**

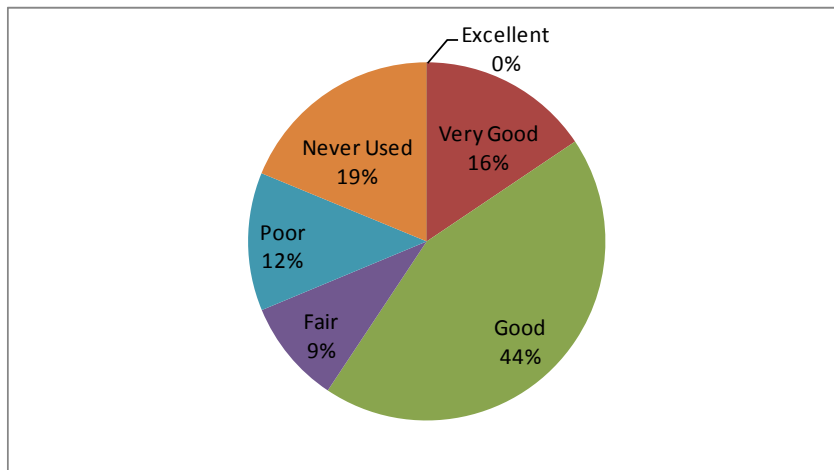
- 78% of respondents rated Part D Infection Prevention and Control as 'very good' or 'good'.
- 12% of participants indicated that this section had 'fair' or 'poor' quality content.

**Figure 8: Evaluation of Part D – Infection Prevention and Control (32 responses)****Part E**

- 19% of respondents have never used Part E, reflecting the technical nature of the information which may not be relevant for all members of the project team and alternative sources for this information such as TS-11 mentioned by at least one respondent.
- Only 16% of respondents rated the content as 'very good'.

- 22% of participants rated the content as 'fair' or 'poor', indicating this is an area for improvement.

**Figure 9: Evaluation of Part E – Engineering Services (32 responses)**



### **Part F**

Sections on Project Implementation (Part F) were poorly utilized by participants. Given that these are NSW-specific sections and provided for information to other AusHFG users, this is perhaps not surprising.

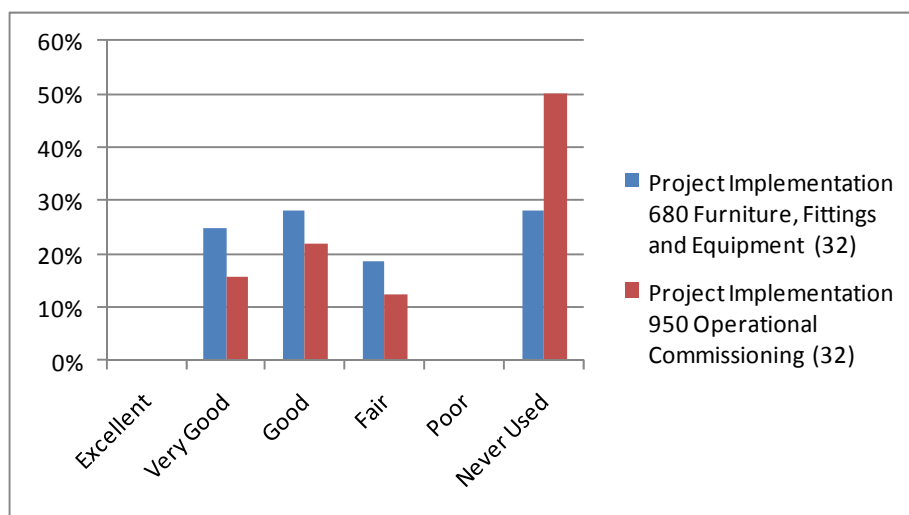
- 50% of participants had never used information on Operational Commissioning
- 28% had never used information on Furniture, Fittings and Equipment (FFE).
- Only 16% of respondents rated Operational Commissioning content as 'very good', although this reflects the fact that this section is generally used by a small number of project team members.
- 19% of respondents rated FFE content as 'fair', consistent with written comments that identify this area as a weakness.

The following comment was made:

- *Although the clarity is good, the building services design guidance is of no real value and it does not provide anything specific that can be used.*



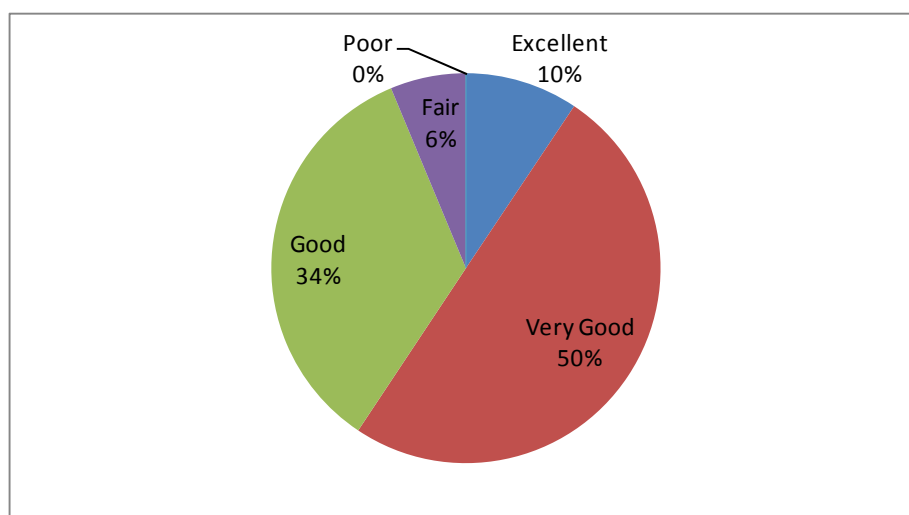
**Figure 10: Evaluation of Part F Project Implementation – Furniture, Fittings and Equipment, and Operational Commissioning**



### Format

Participants were asked to comment on the format of the documents for ease of reading and understanding the AusHFG (question 8.1). The spread of ratings varied minimally from questions regarding structure (question 6.1) and content (question 7.1), demonstrating that these three elements are interrelated.

**Figure 11: Evaluation of the format for ease of reading and understanding the AusHFG (32 responses)**



The following written comments were made in regard to this aspect.

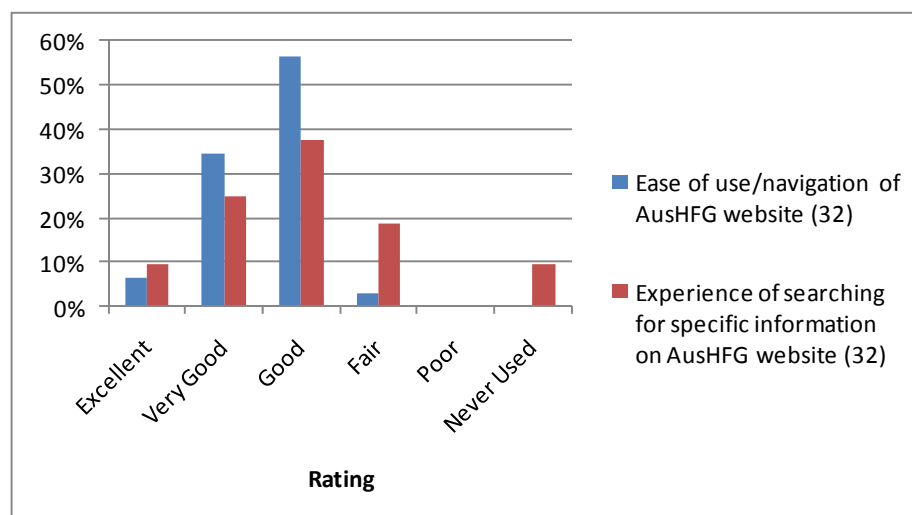
- *Hyperlinks from index to room data sheets would be helpful.*

- *AusHFG is a bit verbose and repetitive.*
- *Format takes some getting used to, especially for staff new to health projects and clients. A more navigable .pdf file may assist. Someone new to the guidelines could find that they jump around as infection control, security and occupational health are considered in different sections. This is a bit of a risk when user groups review only one component.*

### AusHFG Website

Respondents were asked to comment on the ease of navigation around the AusHFG website (question 9.1) as well as the ease of searching for specific information (question 9.2). Although respondents are positive about navigation around the AusHFG website, the ease of searching for specific information received a noticeably lower rating as is evident from the following figure.

**Figure 12: Comparison of ratings for ease of use/navigation of AusHFG website and experience of searching for specific information**



The following comments were given in relation to navigation around the website:

- *When using Keywords it would be helpful to be taken to the areas in which the keyword is used.*
- *It would be great to have quick links to relevant sections in the text.*
- *Although the navigation is good it is rather dull and lacks good design.*
- *Difficult to access information on works in progress.*
- *Would be great to add a link to Evidence Based Design.*

The following comments were made in relation to searches of the website for specific information.

- *It is fast once you know where to look for information, but it is daunting for first time users.*
- *Information searches would be improved if the Index list was linked to the page with the information.*
- *It would be useful to group items together by trade to reflect the NZ measurement methodology for trade schedules i.e. NZ 4202 and perhaps refer to relevant NZ/AU standards.*

## 2.4 Effectiveness of the AusHFG in realizing anticipated benefits

### Streamlining of project briefing and increasing reliability of estimates

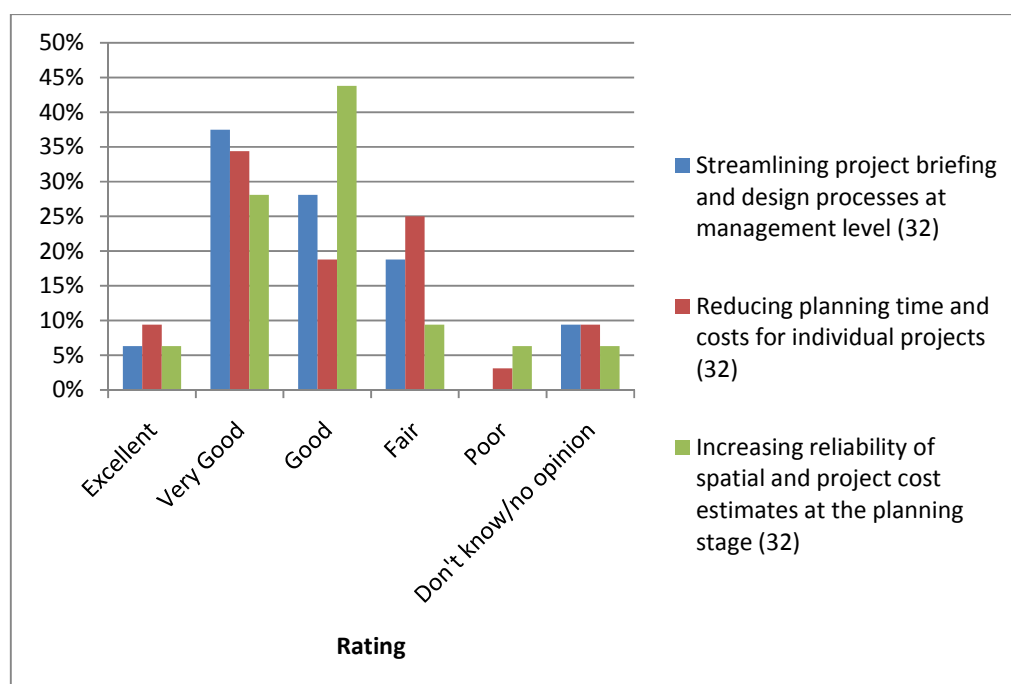
In separate questions respondents were asked their perception of the effectiveness of AusHFG in:

- streamlining project briefing and design processes at management level i.e. for health departments/authorities; capital asset managers; project directors (question 10.1)
- reducing planning time and costs for individual projects (question 10.2)
- increasing the reliability of estimates of spatial requirements and project costs at planning stages of projects (question 11.1).

The following observations can be made in relation to the ratings applied by the respondents:

- 72% of respondents (23) indicated that the AusHFG was 'good' or better as a means of streamlining the project briefing and design processes at management level. 19% rated this criterion as 'fair' while 9% expressed no opinion.
- 63% of respondents rated the AusHFG as 'good' or better in terms of achieving reduced planning time and costs for individual projects; 28% of respondents indicated that AusHFG was 'fair' or 'poor' in this area. 9% of respondents had no opinion.
- 34% of respondents evaluated the AusHFG as 'very good' or better in relation to increasing reliability of spatial and project cost estimates at the planning stage. 44% gave a rating of 'good'; 16% rated this as 'fair' or 'poor'.

**Figure 13: Effectiveness of the AusHFG in: streamlining project briefing and design processes at management level; reducing planning time and costs for individual projects; increasing reliability of spatial and project cost estimates at the planning stage**



The following comments were included in response to the effectiveness of streamlining project briefing and design processes at management level:

- *HFG provides a good baseline but is important to present an appropriate design and for management not to use HFG as a bible for room size and adjacencies.*
- *Good as a benchmarking tool....follow this and you can't go wrong.*
- *Too many people in NZ health facility situations still believe that their situation is different than others (even unique) and so the guidelines don't apply to them. I have not found that to be true in any situation - although there are times when because of their operational policies, rooms do need to be different e.g. automatic medication dispensing.*
- *The perception is very good. How and how often the AusHFG is updated to keep pace with changes will endorse that.*
- *Although these are guidelines there still seems to be a large amount of debate on the components.*
- *Briefing is based upon the Health Services Plan - which cannot be produced from a set of generic guidelines.*
- *We use it as a general guide and peer review document.*
- *Need to be enforced as standard and best practice rather just a guideline.*
- *Not sure how much value is added at this stage beyond an expectation that the HFG will provide detailed benchmarks when required later in the project.*
- *Not certain that the Quantity Surveyors have utilised them fully.*

- *The strength of the guidelines is design guidance for the various design consultants. The effectiveness of the guidelines for briefing depends on the level of experience and knowledge of the managers. The range of parameters required for a comprehensive briefing system is so complex that it cannot be captured by a guideline.*

The following comments were provided in relation to the effectiveness of AusHFG reducing planning time and costs for individual projects:

- *AusHFG could be much better if project owner/sponsor was more ready to insist on their use except where specific variations need to be made. Perhaps if NZ took a stronger line about this it would speed things up.*
- *My observation is that the AusHFG is a start point and a strong benchmark to negotiate with users when they request something more, however it has not reduced the process of user consultation.*
- *Should not stop or hinder design innovation, particularly in creating an atmosphere of enabling excellent delivery of service and user comfort.*
- *The AusHFG allows people to become part of a project where previously they may have left it to those who have more experience.*
- *Clinicians still want to spend time tweaking the components.*
- *It is necessary to use other software tools to extract the data in a useful format. i.e. PDF format not helpful in a practical sense.*
- *Individual health planners still like to think that they know best.... I do not believe it reduces consultant costs very much at all (if any).*
- *If this refers to design time, no more or less than any other standards or models used at the beginning of projects. If this refers to operational time and costs, I have no experience of HFG being used in that way.*
- *Certainly gives reassurance to the User Groups that the design team is offering sound solutions.*
- *I consider the planning time and costs will reduce further as familiarity of the AusHFG increases over time.*

The following comments were received in relation to the reliability of estimates of spatial requirements and project costs at planning stages of projects:

- *Although in room areas are generally rounded down and as an individual room this is not critical but when applied across a whole department can be significant ( e.g. schedule for 30 bedrooms at 15sqm would allow for 450sqm but we may be actually trying to fit 30 x 15.5sqm =465sqm into the allocated space i.e. the equivalent of another bedroom)*
- *We tend to rely on independent QS and don't know the extent to which the AusHFG is applied.*

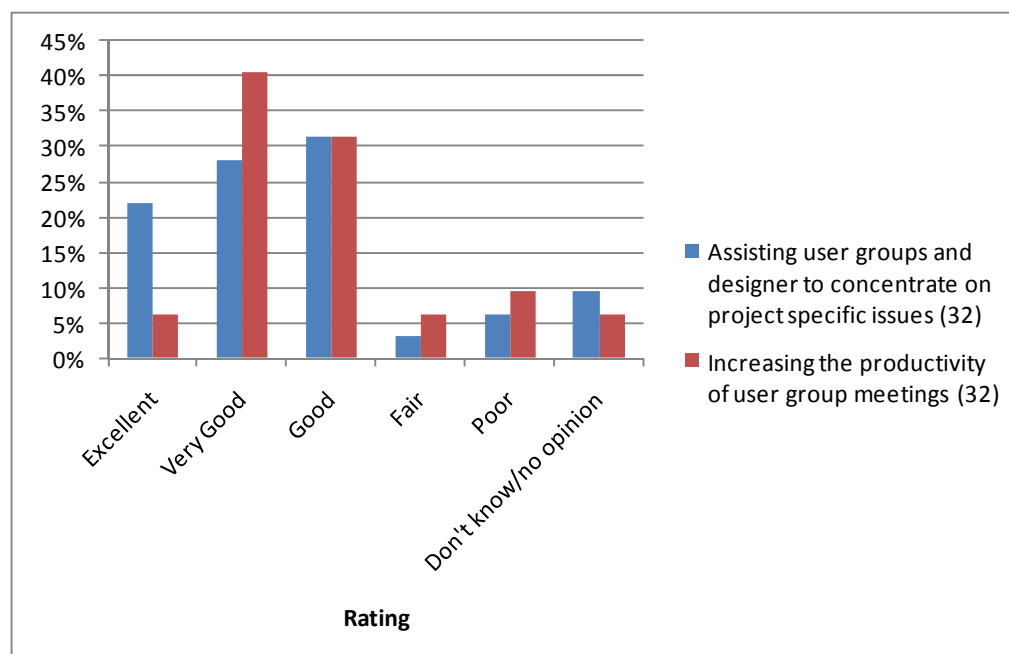
- *I'm not sure that these are helping QS to make accurate estimates.*
- *Tends not to get implemented early enough on NZ projects as Business cases often have insufficient project definition.*
- *Providing a document that clearly identifies what a space is and contains assists in more accurate estimates particularly at concept stages before detailed documents are developed.*
- *The effectiveness should be good but the format of the information precludes its direct application for this purpose by our contracted designers.*
- *Still need to review each build on a case by case basis and also look at things like college guidelines.*
- *Whilst the design teams are using AusHFG I am not sure that the QS have picked them up and revised their cost estimates based on new information.*
- *The guidelines are very helpful in the early design stages when estimates rely on schedules of accommodation more than on accurate plans.*

### **Increasing the effectiveness of user groups**

Respondents were asked to rate the effectiveness of the AusHFG in assisting user groups and designers to concentrate their efforts on project-specific issues including design features (question 10.3), as well as increasing the productivity of user group meetings (question 12.3).

- 22% of respondents rated the AusHFG as 'excellent' in assisting project participants to concentrate on project specific issues. By comparison only 6% rated the AusHFG as 'excellent' in increasing user group productivity. However, there was only a 3% difference between the responses to these questions when 'excellent' and 'very good' were combined (50%; 47% respectively).

**Figure 14: Respondents' perceptions of the effectiveness of AusHFG in: assisting designers to concentrate efforts on project specific issues; increasing the productivity of user group meetings.**



Participants gave the following comments about the effectiveness of AusHFG in assisting user groups to concentrate on project specific areas:

- *When they get in to specific areas, the layouts are helpful in showing what can be achieved in a particular room. Turning circles might be a useful addition.*
- *The AusHFG is most helpful in highly generic areas - offices, toilets etc but difficult for areas such as kitchens and highly specialised services where the NZ model of care is significantly different from that in Australia.*
- *This is where we see the best value as AusHFG allows us to set a benchmark and from this control the wants of the users.*
- *HFG assists users to "cut to the chase" of component design, especially plans/elevations and room data sheets. They carry a reasonable weight of credibility, allowing us to focus on what is different for this project. The other parts of the HFG are less applicable in the NZ context, so are used more as guides/checklists for designers than tools and models to work with users.*
- *Despite the quality of the guidelines, the users groups consider their service is unique/different and continuously challenge the guidelines.*

Respondents gave the following comments in relation to the effectiveness of the AusHFG in increasing the productivity of user group interactions /meetings /discussions for hospital project(s).

- *We tend only to refer to HFG schedules as a base guideline for areas e.g. schedules, not for room layout options.*
- *For some areas, it reduces discussion e.g. generic rooms such as store rooms, lounges, offices.*
- *We have used HFG as a means of establishing project specific standard rooms quite early in design, allowing us to spend time on special or unique rooms.*

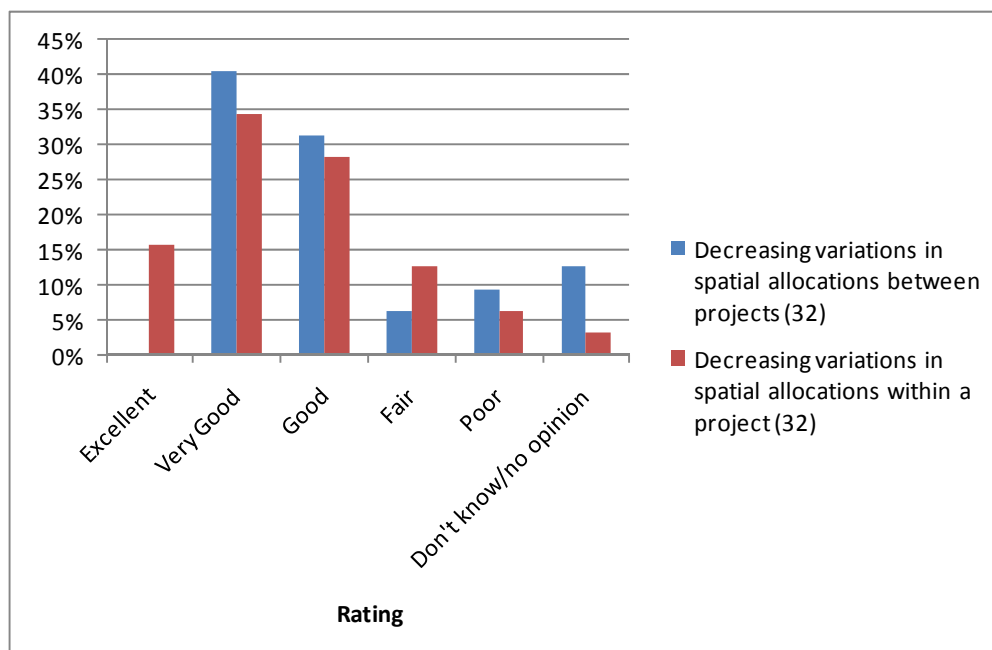
### **Reducing spatial variation for similar rooms/spaces**

Participants were asked to rate the effectiveness of the AusHFG in reducing the variations in spatial allocations between different projects of similar complexity and function (question 11.2), as well as within an individual project (question 11.3).

- Respondents were more likely to provide a positive rating to the AusHFG as a means of decreasing variations in spatial allocations within a project than between projects. 50% of respondents rated internal consistency for an individual project as 'very good' or 'excellent', compared with 41% who gave the same ratings for consistency between different projects.
- Respondents were more likely not to have an opinion in relation to consistency between projects (13% compared with 3%).

**Figure 15: Respondents' perceptions of the effectiveness of the AusHFG in reducing variations in spatial allocations between different projects and within an individual project**





The following comments were made in relation to spatial variations between projects of similar complexity and function:

- *They provide a good baseline for many of our projects, but there can be considerable variation depending on the project, the DHB involved and in comparison to Australian hospitals. For example, in NZ we often use a different model in Operating theatre suites compared to those in Australia, e.g. no anaesthetic rooms used, we use set up and clean up rooms, or the use of case carts vs. set up rooms and the impact on design etc.*
- *In our experience we never design a clean utility smaller than 14sqm and a minimum of 18sqm if including a medication zone.*
- *The AusHFG can be a handbrake for innovation and new thinking.*
- *Sometimes one is able to quote another facility to show that a particular size room advocated by the AusHFG is OK, but clinicians visit a lot of facilities and have a bad example to quote.*
- *The AusHFG is good as a peer review document for controlling both designers and users.*
- *Health department / users rate the AHFG as the minimum requirement not the standard or best practice.*

The following comments were made about the effectiveness of the guidelines in reducing variations across HPUs within an individual project:

- *There are always differences for individual projects and circumstances, but HFG provides a credible basis for a discussion about the differences.*

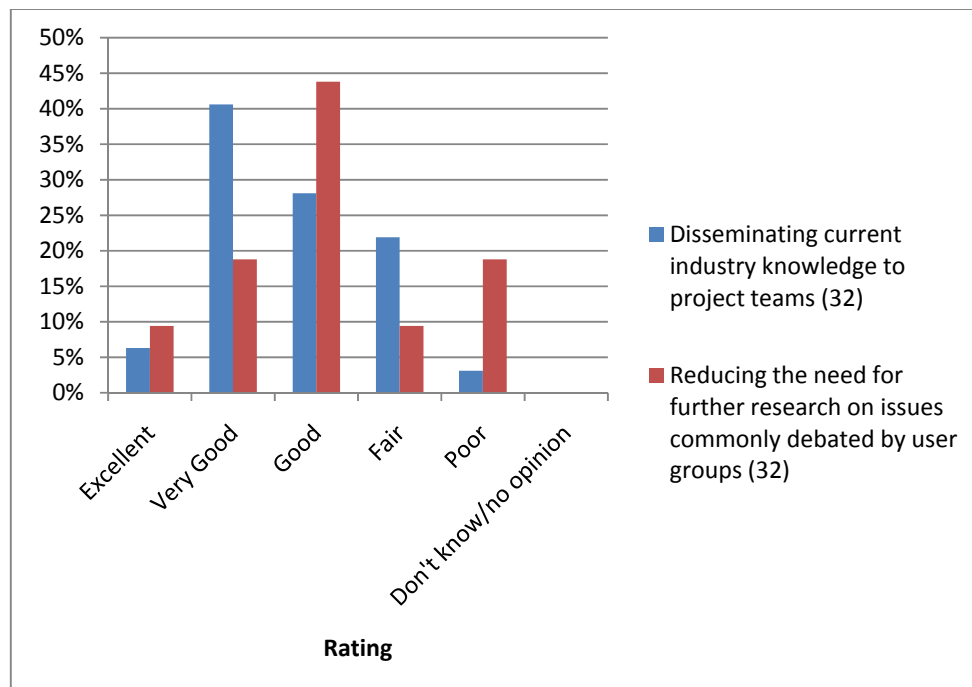
- *We have found that there are some omissions that could be important e.g. Cardiac and Body protections in some rooms e.g. procedure*
- *They have been effective for standardization of bedroom sizes, reception, offices. However some rooms vary within the same facility e.g. utility rooms will differ according to individual dispensing versus automatic versus bulk dispensing.*

### **Dissemination of knowledge and reducing the need for project-specific research**

Respondents were asked to rate the effectiveness of the AusHFG in disseminating current industry knowledge regarding good health facility design / accepted clinical practice to project design teams (question 12.1) and, separately, the effectiveness of the AusHFG in reducing the need to undertake further research on issues commonly debated by user groups on your hospital projects (question 12.2).

- 75% of respondents indicated that the AusHFG are 'good' or better in terms of the dissemination of current industry knowledge, 22% rated them as 'fair' while only 3% regarded them as 'poor' in doing this.
- 72% of respondents rated the AusHFG 'good' or better in terms of effectiveness in reducing the need to undertake further research on issues commonly debated by user groups compared to 19% who rated them poorly in this area, while 9% rated them as 'fair'. Comments made suggest that many user groups continue to regard it as part of their responsibility to do further research in areas where their specific project needs appear to differ from what is proposed by the AusHFG. Given the status of the AusHFG as a guideline and not a 'standard' this seems an entirely reasonable approach.

**Figure 16: Respondents' perceptions of the effectiveness of the AusHFG in: disseminating current industry knowledge to project teams; and reducing the need for further research on issues commonly debated by user groups**



The following comments were received in relation to dissemination of industry knowledge:

- *We have found that the document sometimes tries to cater for all scenarios for a room which is good in some respects as it is a good prompt but creates problems in others as a room can appear over designed and user expectations need to then be managed.*
- *The AusHFG is particularly helpful for designers who are new to health design.*
- *Critical design features, particularly in concept design phase such as adjacencies, functionality, flows etc, could be missed by an inexperienced architect.*
- *We have found in general that family orientated spaces are not as well catered for. In NZ we have a number of family/whanau/fono rooms to cater to the needs of family members particularly in relation to Maori and Pacific families. These are present in nearly all inpatient accommodation units and community facilities and are particularly important in spaces that have high acuity patients. Hence facilities need to create potential for grieving families wanting to be close e.g. CCU, ICU etc.*
- *AusHFG has difficulty keeping up with emerging technology, new models of care and changes in practice.*
- *Updating quickly the base document is the challenge.*
- *People question the validity of the AusHFG because they do not understand how the AusHFG is developed.*

- *It would be helpful to benchmark projects based on the AHFG as most of the health departments and users are keen to benchmark their hospital to other project used the AusHFG.*
- *I don't get the sense that HFG is really used as a source of this type of information.*
- *AusHFG disseminates current industry knowledge for the design teams, but this is not necessarily accepted by users.*

The following comments were provided about reducing the need to undertake further research:

- *We use HFG in conjunction with other relevant NZ guidelines but in a number of cases HFG dimensions are less than NZ Patient Guidelines which has hindered the adoption of NZPHG. Perhaps the ergonomic work that has been done on NZPHG could be reviewed by the HPG team.*
- *Because some teams believe their needs are unique, they still want to do research themselves.*
- *Need to ensure that the adoption of the HFGs does not prevent research that leads to innovation.*
- *Empowerment and ownership of the project by user groups requires a debate and internal consultation process that cannot be replaced by a guideline.*
- *We have used the HFGs for specific topics that users have raised.*
- *HFG is seen as a slowly-evolving standard rather than at the cutting edge of current issues (e.g. proportion of single bed rooms) which tend to rely on other sources of information*
- *In my role as an advocate for the user groups I would still undertake research - NHS and US AIA.*

## 2.5 Suggested improvements for the AusHFG

Participants were asked to share their personal ideas on how the AusHFG could be improved (question 13.1). In addition to positive comments on the usefulness of the AusHFG, some detailed suggestions were made for their improvement. These have been summarized for the purposes of this report.

- *Greater clarity as to the application status of the AusHFG is required from MoH. At present it is variously regarded as a design standard with variations being the exception, or as a guideline which allows end users to apply and modify as they see fit. Implementation of the AusHFG as a standard would provide significant reductions in planning, design, and project timeframe delays, and create opportunity for improved cost control, whilst loose application by users undermines their usefulness. NZ MOH*

*could provide a transparent policy statement for DHBs on AusHFG status, the process to adopt variations, and precedence of AusHFG versus College guidelines.*

- *HPUs should include more information on evidence based design, including examples and benchmarking against built hospitals. Links or append relevant research papers that have informed the development of each HPU should be included. Include discussion from the literature on current design issues, such as environmentally sustainable design.*
- *Workshops on particular issues or projects relevant to the AusHFG would be helpful.*
- *The information provided for engineering of building services is very general. The text offers nothing to the designer, other than providing a link to useful documents such as TS11 and WA design guidelines. Consider adding ASHRAE, CIBSE and British HTMs which do provide very good design guidance. If AHIA does not want to replicate or improve upon TS11, then perhaps it would be more appropriate to refer readers elsewhere, rather than providing lesser information than is available in other documents. From a designer's point of view however, it is common and frustrating to refer to multiple design documents to get an idea of the whole picture. It would be great to have a master or principal document that leads the designer through the issues of designing building services for healthcare facilities. Some design documents are biased towards the common approach of the local geographic region i.e. American approach is covered by ASHRAE, British by CIBSE, so it would be useful if ANZA was covered by one document - AusHFG.*
- *AusHFG could promote incorporation of, and mitigate conflicts with, various Australasian College facility guidelines (e.g. Medicine, Nursing etc).*
- *Some models of care and technologies are changing quite quickly, such as automated medication dispensing, use of scooters by older people, and the NZ Improving the Patient Journey which is addressing MEB type allocation and other storage areas for equipment. This means that the Guidelines frequently do not reflect current practice.*
- *Speed up the HPU review process. For example review of Operating Theatre guidelines - meeting held in Adelaide in April 2008 - as far as I know, revised guidelines have not been published.*
- *Clauses and references that are applicable to the NZ context need to be included; currently this is overlooked. Perhaps even inclusion of BIM (IFC) files of components & equipment.*
- *Provide information on how differing models of care impact on design options.*
- *A more interactive "live" interface would be useful to enable better searching and customisation for individual projects. Keep it simple and user friendly.*
- *There needs to be more recognition that many projects are renovation or refurbishment with the constraints of the existing facility. The AusHFG planning and layouts can be more difficult to implement and remain within the clients brief / budget on renovation type projects as opposed to new build work.*

- *The PDF Room layout sheets are good, but have not been produced in a way that the text within the drawings is searchable so items are hard to find. This could be fixed by using a different PDF Distiller.*
- *Drawings of standard rooms should be available in 3D CAD models e.g. Revit. It would also be good to have the Room layout sheets available in (\*.dwg) format for distribution to consultants.*
- *A multiplication factor could be suggested to achieve an appropriate circulation allowance (as well as Travel and Engineering when working in existing buildings due to inefficiencies of working around existing floor plates, structure etc.*
- *HPU schedules can be a little confusing, particularly for spaces identified as optional or able to be shared between departments. Perhaps break up and give separate totals for required areas, optional areas and shared areas.*
- *Less repetition of simple rooms in Room Data Sheets e.g. Waiting room 10sqm, waiting room 15sqm etc or store rooms.*
- *Typical corridor widths are narrower than is the NZ expectation for main department and interdepartmental corridors. AusHFG quote 2200mm, however we typically use 2400. A flow on consequence of this is that circulation area allowances seem to be based on minimum corridor widths and hence are often not adequate.*
- *Clean utility size too small, particularly when using Pyxis.*
- *Dirty utility layouts do not generally work with typical NZ practice.*
- *A design for single bedrooms with interlocking ensuites would be helpful as these give good visibility both of staff in corridor to patient and patient to window.*
- *We have found that AusHFG room designs do not allow for adequate structure (while this may be a NZ issue it was interesting to note that GCUH had numerous 700x700 columns).*
- *An alternative design for isolation rooms could be useful as we often design with patient access directly off a corridor (rather than through an ante room) due to space constraints or patient visibility issues.*
- *More commentary on individual rooms may be helpful e.g. on Dirty utility flows, CSSD, Scope clean etc.*
- *Provide more detailed guidance on space allocations for rooms within specific HPUs. For example: An High Dependency Unit with 1 -8 beds should have a 5sq m Clean Utility and an HDU with 8-15 beds should have a (say) 8sq m Clean Utility etc.*
- *The infection control data is limited. Building materials/detailed guidelines would be useful inclusions.*
- *Industry is moving toward building information modelling and this should be addressed by the AusHFG.*
- *Allow users to custom build HPUs.*

- *Guidelines could promote standardisation of FFE CAD codes across disciplines and firms.*
- *Continue the incorporation of specific Maori/Pacific Island considerations.*
- *The AusHFG should reflect outcomes of Post Occupancy Evaluation.*
- *A tailored introduction to 'health planning' in the guidelines specifically written for user groups which qualifies for continuing professional development credits for Nurses would be helpful.*
- *For NZ users, uploading of completed designs to allow easier sharing of information between DHBs. I appreciate that this is a 'user' issue which can be circumvented by direct contact between DHB staff - providing we know what has been completed.*

### **Ongoing participation in development and review of the AusHFG**

72% (23) of respondents indicated an interest in participating in ongoing review and development of the AusHFG (question 14.1). They were then asked to provide contact details to enable follow up.

Survey respondents were then thanked for their participation and advised that results will be disseminated to them once collated.

## **3. CONCLUSIONS**

In general, the survey results reveal a positive assessment of the implementation and use of the AusHFG on NZ health projects which suggests that many of the anticipated benefits of the AusHFG are being realised. There are areas for improvement identified and many of these are already being addressed in the ongoing development process. However, the issues regarding the AusHFG website design, its static quality including use of pdf documents and its relatively poor searching function are not a surprise. However, these issues are yet to be addressed or even considered in the AusHFG project plan as to date the main focus of the development team has been on content creation and review rather than on guideline delivery mechanisms such as website improvements.

Many of the comments reveal the inherent tensions in guideline creation and implementation on projects e.g. the 'standard' vs 'guideline' approach - should they be 'enforced' or are they are a 'starting point', etc. Also some frustration is revealed in comments that note that many project teams believe that their project is unique – and so the guidelines have limited relevance for that situation. However, on the other hand, there are also comments that suggest that more content is needed (and faster than at present) to satisfy emerging project needs. Finally, there are comments that note the guidelines will never be cutting edge which contrast with other comments which suggest they are sensible and reasonable.

In summary, the comments made reflect the diversity of the NZ users of the AusHFG and to some extent, their depth of experience and often their discipline background. This suggests that greater education of novice users could be beneficial including an explanation of AusHFG status on NZ projects, how and when they can be varied – and the governance of the process for doing so.

Finally, greater participation by NZ users in the development of the AusHFG may overcome many of the content and process issues perceived in that jurisdiction. Many of the comments made suggest that some users feel that they have limited ability to influence the outcomes of an apparently Australian-centric project. However this is not the case as by agreement, all AHIA jurisdictions have an equal opportunity to participate in project Steering Committees and other forms of project governance such as review processes. This allows equal weighting for all jurisdictions in the decisions made re guideline content, development processes and program and if utilised as envisaged will lead to the creation of a more truly Australasian body of knowledge that could more fully represent the interests of all project stakeholders in this region.



## 4. APPENDIX

FBE HREAP FORM 3 – PROJECT INFORMATION STATEMENT January 2007

# PROJECT INFORMATION STATEMENT

Date: 10 February 2010

Project Title: AusHFG User Survey 2010

Approval No.: 105004

THE UNIVERSITY OF  
NEW SOUTH WALES



FACULTY OF THE  
BUILT ENVIRONMENT

### Participant selection and purpose of study

You are invited to participate in a study of user satisfaction with the Australasian Health Facility Guidelines (AusHFG). You were selected as a possible participant in this study because you were identified by the NZ Ministry of Health as a health facility industry professional experienced in the use of the AusHFG on NZ health projects. At this stage we are only undertaking this study in NZ although it may in the future be extended in either its current or amended form to other Australasian Health Infrastructure Alliance (AHIA) jurisdictions.

### Description of study

If you decide to participate, you will be asked to indicate that you have read this project information statement as the first question of the web-based survey questionnaire. The questionnaire will then take you through a series of background questions including questions regarding your professional background and the extent of your use of the AusHFG. It will then proceed to questions regarding your satisfaction with the content, format and delivery method of the AusHFG and ask you to indicate any ideas you may have for how the guidelines may be improved. Finally it will ask whether you are interested in being involved with ongoing review and development of the AusHFG on behalf of the NZ MOH. The questionnaire will take approximately 10 minutes to complete. Results will be analysed and used to assist the AusHFG development team to target areas for improvement in future AusHFG development programs.

We cannot and do not guarantee or promise that you will receive any benefits from this study.

### Confidentiality and disclosure of information

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission, or except as required by law. We plan to provide only the aggregated results of the survey to the NZ Ministry of Health and the Australasian Health Infrastructure Alliance (AHIA) for the purpose of improving the AusHFG during future stages of their review and development. Further studies may also be conducted to investigate in greater depth issues or concerns identified by this survey.

### Recompense to participants

There will be no recompense offered to participants for participation in this survey.

### Your consent

Your decision whether or not to participate will not prejudice your future relations with The University of New South Wales or other participating organisations.

If you have any questions now or in the future, please contact Associate Professor Jane Carthey, ph: +612 93856016; e: [j.carthey@unsw.edu.au](mailto:j.carthey@unsw.edu.au) who will be happy to answer them.

(Signed)

Associate Professor Jane Carthey