



Post Occupancy Evaluation Practical Handbook

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Centre for Health Assets Australasia

POST OCCUPANCY EVALUATION (POE) - PRACTICAL HANDBOOK

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Centre for Health Assets Australasia Post Occupancy Evaluation (POE) Process

A Practical Handbook

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SECTION 1 - CHAA POE PROCESS

A Practical Handbook

This Practical Handbook outlines the purpose and process of the Centre for Health Assets Australasia (CHAA) Post Occupancy Evaluation (POE) from the perspective of a person/organisation undertaking the POE process.

a. Purpose

The CHAA POE methodology was developed to support systematic evaluation of health service buildings and facilities that usually takes place one to two years after the occupation of the facility. The CHAA POE methodology supports the NSW Health Post Occupancy Evaluation Guideline - May 2004, which is compatible with the NSW Treasury Total Asset Management (TAM) Policy.

The purpose of a POE is to:

1. Review actual/assessed project outcomes against planned outcomes;
2. Disseminate lessons to stakeholders;
3. Inform future decisions/actions.

POE is not intended to be a contract compliance process. The methodology outlined in the CHAA POE Guideline was developed as a systematic approach to comparing achieved project outcomes against planned outcomes. The use of an effective POE process may improve the planning and design of future projects. The POE, when looking at issues such as functional relationships or quality of finishes, always does so in relation to the contribution the facility's planning and operational activities make to the goals of the organisation i.e. the support of health service delivery activities.

The consultant undertaking a POE process gathers and translates facility users' perceptions, and operational data, into recommendations for improving facility management and planning processes. Quantitative information is required to assess facility performance. Qualitative information is required to understand the context and nature of the expected and achieved outcomes.

The complexity and scope of a Post Occupancy Evaluation can vary depending on the requirements of the commissioning body. The POE may be used to examine an overall facility or a specific Health Planning Unit (HPU) or other component of a facility. It may also be applied to consider an issue across several facilities e.g. fittings or door widths. This will require tailoring of the instrument and process to specifically deliver the required information.

b. POE Information

The information framework in the CHAA POE Process is derived from the POE Information Matrix outlined in the NSW Health Post Occupancy Evaluation Plan - May 2004. This framework indicates the range and type of information necessary for the development of a POE. Existing project profile information and operational data should be available to enable comparison of the three planning and construction phases: Service Procurement Plan (SPP), Project Definition Plan (PDP) and Project Implementation (PI), against the actual operational activities. This comparison is at the core of the POE process.

There are six stages in completing a Post Occupancy Evaluation (POE) as illustrated by the following diagram.

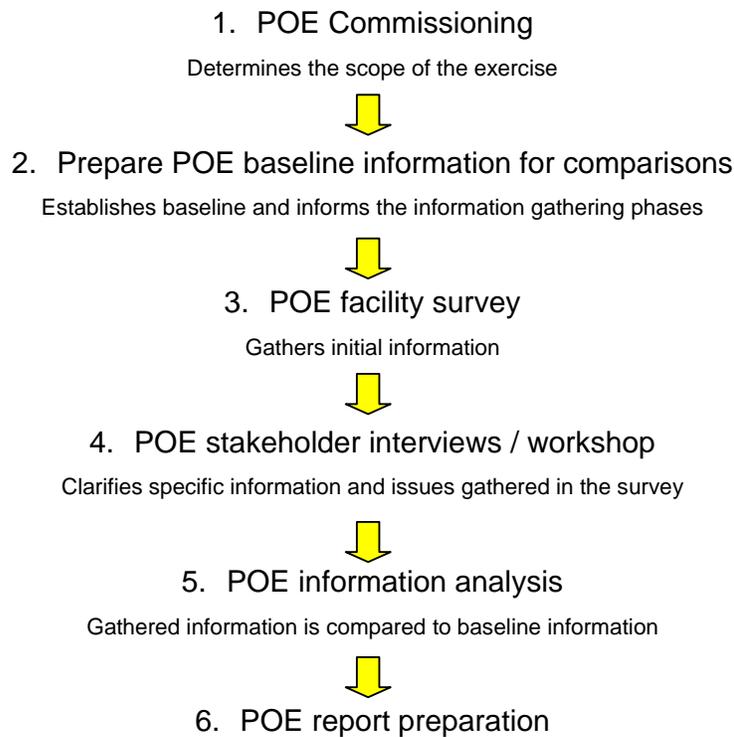


Diagram 1 - Stages of the Post Occupancy Evaluation Process

Table 1 outlines the types of data collection (numbered horizontal axis) by the project levels (lettered vertical axis). Note that in referring to support documentation, such as government policy and Health Facility Guidelines, care needs to be taken to use the information available at the time of the SPP and PDP development. The correct version can be identified from the SPP and PDP documentation lists. It is suggested that the version or date of the documentation should always be referenced for clarity.

Table 1 - Post Occupancy Evaluation Project Information Matrix

	1. Service Outcomes Process	2. Facility Functionality	3. Facility Procurement
a. Project Profile	Generic project information (minimum data set) collected to enable comparison of similar sized projects. Data collected includes: - role delineation; - catchment size; - service level; - occasions of service; - operational budget; - staffing FTE; - project services; - catchment area; - bed numbers etc.	Generic project information (minimum data set) collected to enable comparison of similar sized projects. Data collected includes: - building HPU; - HPU cost; - HPU Gross Floor Area; - functional relationships; - HPU Circulation Area; - HPU Travel and Engineering.	Generic information collected to enable comparison of similar sized projects and to test the adherence to the Process of Facility Planning. Data collected includes (as applicable): - capital budget; - program; - procurement methods; - SPP approval; - PDP approval; - predicted project length.
	<i>Source: Facility Business Case or Service Procurement Plan (SPP).</i>	<i>Source: Project Definition Plan (PDP)</i>	<i>Source: Facility Business Case or Service Procurement Plan (SPP) & Project Definition Plan (PDP)</i>
b. Facility Data	For overall Facility: Improved health outcomes as per government strategies and Service procurement Plan (SPP) e.g. facilities supporting desired service models.	For specific Health Planning Unit: Estimated service utilisation (SPP) for Health Planning Unit vs actual. Purpose of data collection to test the generic section of the Health Facility Guidelines in terms of assessing: - Performance against the Project Definition Plan including Design, Building Services and ESD, OH&S, Safety and Security, Infection Control; - A particular HFG requirement e.g. ensuite sizes.	For overall Facility Assess effectiveness of PDP in achieving the built project. - Assess scope and budget control; - Assess user group process; - Assess communication strategy; - Assess project management.
	<i>Source: Relevant government strategies/policies available from SPP briefing papers list- Models of care etc.</i>	<i>Source: Actual utilisation for comparison with the SPP will be available from Facility or Health planning unit reports & POE Survey tool.</i>	<i>Source: Refer SPP Report, POE survey and interviews (if applicable), Business Case, SPP user group/community consultations & interview process.</i>
c. HPU Specific Data	For Specific Health Planning Unit: - Estimated service utilisation (SPP) for health planning unit vs actual performance.	Data is collected to assess HPU specific sections of the HFGs: - Assess performance against the Project Definition Plan. - Assess Australasian HFG requirements (CHAA website). - Provide feedback to client and CHAA re design & technical issues to influence future HFG development updates.	For specific Health Planning Unit: - Assess operational commissioning process and provide feedback to POFP review.
	<i>Source: Unit performance data & mandatory requirements such as EAPS management reports.</i>	<i>Source: Refer SPP Report & POE survey and interviews (if applicable).</i>	<i>Source: Refer SPP Report & POE survey and interviews (if applicable).</i>

Developed from the "NSW Post Occupancy Evaluation Plan - May 2004"; #7 Post Occupancy Evaluation Information Matrix. Likely sources of information in italics.

c. How to use this document

The purpose of this document is to guide the development and implementation of an evaluation process tailored for a specific POE project or consultancy. It is written from the perspective of a consultant or other 'evaluator' undertaking a POE project.

This document should be read in conjunction with the POE Agreement (or Consultancy Brief), which will outline the objectives and scope of the evaluation to be undertaken. The sections of this document can be used together or independently to suit the needs of a particular project.

SECTION 2 - POE COMMISSIONING

In addition to the contractual terms agreed between the parties, the agreement commissioning the POE process should clearly outline the purpose and scope of the POE. A clear statement of the POE objectives should be included that outlines the following issues:

- Level, scope, timeframe and target groups for gathering the POE information e.g. management; administration; service deliverers; facilities management, maintenance and technical support; service users; and community/population groups.
- Specific areas of interest nominated by the client organisation that the evaluator should report on. This could include specific areas/units of the facility, functions or operational aspects e.g. environmentally sustainable design; innovatively designed units; new models of care, policies, functional relationships or service functions; units targeting particular client groups; areas of high priority or concern such as security or safety.
- An undertaking from the client organisation to provide copies of the original design documentation and access to appropriate staff and units for the purpose of the evaluation or advice on how these may be obtained. This includes detailed functional relationship diagrams, master plans, mechanical and floor plans. (Suggested detail in Table 1 Post Occupancy Evaluation Project Information Matrix, particularly Project Profile level).
- Access to sufficient project documentation (e.g. Variations Schedule) to determine approved project variations and the reasons for these.
- Specific information regarding the extent to which service user and community consultation should be included in the POE evaluation.

This should be regarded as baseline information that will enable the establishment of outcome priorities and tasks and will ensure clarity regarding the roles of all parties to the POE Agreement.

A POE is more likely to be successful where collaboration occurs with the client organisation during each stage of the process. This may include regular meetings and communication between the parties. It may also involve interim reviews of findings, draft reports, provision of timely feedback and so on.

SECTION 3 - POE BASELINE COMPARISON

Post Occupancy Evaluation compares the planned facility with the built and operational facility. It does this with reference to the strategic goals of the organisation and in terms of the identifiable needs of facility users. For comparison purposes, a baseline for comparison should be established. This is often one of the most difficult and time consuming tasks. The final approved documents for each of the phases of the facility development: Service Procurement Plan (SPP), Project Definition Plan (PDP), Financial Impact Statement (FIS) and Project Implementation (PI) are therefore essential and should be made available to the evaluation team.

Table 2 - Documentation for establishing a POE baseline

Depending on the scope and purpose of the POE, the following documents may be required:

Document / information	Source(s)	Comment
SSP/Feasibility Study.	<ul style="list-style-type: none"> - Commissioning health organisation. - SPP consultant. - Funding body - asset management group. 	<ul style="list-style-type: none"> - These documents can be difficult to locate because of time elapsed. - The documents may be subject to intellectual property rights and commercial in confidence agreements. Permission should be sought through the project client. - The level of detail available will affect the quality, level and scope of the comparison.
Design Brief / PDP.	<ul style="list-style-type: none"> - Client organisation. - PDP consultant. - Architect/health facility planner. 	Minimum requirement.
Service Plan includes demographics, epidemiology, service and care models, priority/target groups, local determinants of health priorities.	<ul style="list-style-type: none"> - Client organisation. - Service planners. - Clinicians. - Community consultation record. 	It is important to obtain the information used by those who planned the facility. Check against the documents listed in the SPP. Check dates and titles of documents.
Description of Functional Relationships & Master Plan documents.	<ul style="list-style-type: none"> - PDP team or PDP consultant. 	This information is essential for understanding comments made by respondents regarding functional and operational issues. May be included in the PDP.
As Built Floor Plan.	<ul style="list-style-type: none"> - Project manager. - Facilities manager. - Architect. 	This information is essential for understanding comments made by respondents regarding functional issues.
Results of community consultations and other stakeholder meetings including reports where available.	<ul style="list-style-type: none"> - SPP team or SPP consultant. - PDP team or PDP consultant. 	May be included in the SPP/PDP.

Relevant policies and health strategic plans.	<ul style="list-style-type: none"> - Health Department. - Client organisation or as referenced in the SPP/PDP documentation. 	Health Service planners will have developed the project in accordance with Department or organisational policies and priorities.
List of SPP team and SPP consultants for reference	<ul style="list-style-type: none"> - SPP & PDP planning document references. - Client organisation. 	Final SPP reports may not include material that can later be seen to be relevant. The opportunity to consult with someone from the original planning exercise may be useful.
Specific target group information	<ul style="list-style-type: none"> - Such information may be available through Access and Equity reporting mechanisms e.g. CALD & disability access reports. - Advocacy organisations, patient or professional representatives may also be appropriate sources. 	It may be appropriate to consult with some service users, patient organisations or advocacy groups. Alternatively, regulatory positions such as patient representatives or mental health advocates may offer useful input.
Facility specific reports or investigations	<ul style="list-style-type: none"> - Occupational Health & Safety, security operational reports etc. - Facility maintenance and managers' reports. 	New Building modifications, security and OH&S/incident reports, purchases and replacements of FFE that have proven to be unsatisfactory; may provide information relevant to the POE.

Where possible, collection of current data in a form compatible with the baseline data should be attempted. Where essential baseline data is not available, this should be discussed with the client organisation. This may assist in determining the parameters of the survey processes. Where relevant, project variations agreed during the project implementation phase or subsequently, should be assessed against the baseline data.

SECTION 4 - POE INFORMATION COLLECTION

Roles of POE Participants

EVALUATOR (Consultant, Health Service Officer, Client representative)

- Develop process and manage conduct of POE;
- Gather information;
 - a. Database - types and format of data to be input
 - b. Surveys
 - c. Interviews
 - d. Industry benchmarks
- Assess and analyse data gathered;
- Assess project outcomes in terms of the client's strategic goals including health service delivery objectives;
- Write report.

RESPONDENTS (Facility Users - includes facilities management, service providers, patients and community consumers)

- Participate in completion of survey, workshops and other data collection exercises;
- Report accurately on the performance of the facility (qualitative and quantitative - 'evidence based');
- Describe work processes and models of care;
- Assess suitability of operational models;
- Provide feedback and context for data provided and evidence derived.

Choosing participants

A POE should consult as broadly as possible. The selection of respondents and participants in the POE will depend on the agreed purpose and level of investigation required for the study. A POE that focuses on Health Planning Unit level evaluation may consult a greater number of unit managers, clinicians, administrative staff and facility managers. These participants will generally view the evaluation from different perspectives and these will vary from the view of a community member.

Issues for consideration

Participation should always be voluntary and with informed consent.

When nominating staff for the evaluation, consider the following issues:

- Ability to understand and comment on the extent to which the facility supports the strategic objectives of the organisation, especially in supporting the delivery of high quality healthcare.
- Experience and time spent working in the facility being evaluated. New staff members may not have sufficient experience to provide detailed commentary.

- Whether or not the nominated staff member was involved in planning the facility. It is important to target some staff with, and some without, experience in planning the facility.

Community members, patient advocacy groups and representatives may prefer to be dealt with separately or in a different setting to other participants. The emphasis should be on gathering information regarding how well the facility supports the strategic goals and operations of the organisation, including how well the expected outcomes match the actual outcomes. These should be a strong focus of the service users. It may be necessary to have copies of original community consultation reports or the relevant section of the SPP as a reference point to understand the context.

In order for participants to be available, work time release may need to be negotiated through facilities and staff line managers. This will require a detailed description of the process to be provided to the managers. The managers will negotiate and approve the investigation process and the participants. The unit, facilities and operations manager(s) should be informed regarding the method and timing of the study.

Clearly, the greater number of participants, the larger the amount of information will be received; consequently, the analysis will be more complex and time consuming. An email address may also be made available for receipt of such communications. In order to ensure as broad consultation as possible, facility users should be encouraged to communicate with the nominated participants to provide their information and opinions.

POE Survey Components

The Centre for Health Assets Australasia (CHAA) Post Occupancy Evaluation (POE) Survey has been developed through a case study process and is based on the NSW Post Occupancy Evaluation Plan - May 2004 document process. The Survey template is included as Appendix 3.

The Survey consists of 5 parts:

Introduction and Instructions

This contains an outline of the purpose, an introduction to the survey tasks and instructions for understanding the scaling system and format.

Part 1 - Respondent Background

This includes some basic information on position, role and experience, including whether the person was involved in the planning of the unit.

Part 2 - Overall Facility Evaluation

2.1 General

This section will assess the respondent's overall opinion of the successful and less successful aspects of the facility including the best and worst features (prioritised) and their affect on service delivery.

2.2 Physical Planning

This assesses functional relationships between different phases of the facility including utilisation (inadequate size, functional areas omitted) and opportunities for future expansion (flexibility and adaptability).

2.3 Staff, visitors and patient comfort

This assesses features/amenities contributing to comfort and/or enjoyment (patient, visitor and staff perspectives); most liked and most disliked features; wayfinding; increased community involvement/usage; outdoor area usage by patients, visitors and staff. This section provides an opportunity for the respondent to note staff, patient and visitor comments regarding key features of the facility.

2.4 Planning Criteria

Every facility planning and design process focuses on achieving specific project criteria. These may be expressed as a series of community or user outcome statements on ideal service delivery, or may cover detailed specific performance requirements for a technical area.

This section is designed to permit the POE team/consultant to convert these statements into questions that seek performance information relative to the original statements.

Planning Criteria Table - Example

Step 1

Participants rate the relative importance of each criteria statement to the functioning of the facility.

Importance	
H	High
M	Medium
L	Low

Statements may be replaced with project specific criteria

Step 2

Participants assess the facility's performance in meeting each of the criteria.

Score	Description
5	Exceptional
4	Good
3	Functional
2	Poor
1	Unsatisfactory

Criteria Statements	Importance (H, M or L)	Assessment (score 1-5)	Comments
a. Development of an integrated health model through collocation to:			
i. Enhance access to services for the community.			
ii. Improve effectiveness of services.			
iii. Result in cost efficiencies in the delivery of services.			

The Planning Criteria section then specifically addresses the design criteria originally developed during the facility project planning process. It permits the material to be analysed according to the perceived importance of the issue to the facility users, as well as the performance in meeting the original criteria developed for the project. N.B. the statements already included in the exemplar table were developed by community representatives as the criteria for the POE of a specific rural multi purpose facility. They should be varied or modified to suit a new POE, but Section 2.4 specifically requires tailoring of the survey to the particular goals of a facility i.e. assessing whether it is 'fit for purpose'.

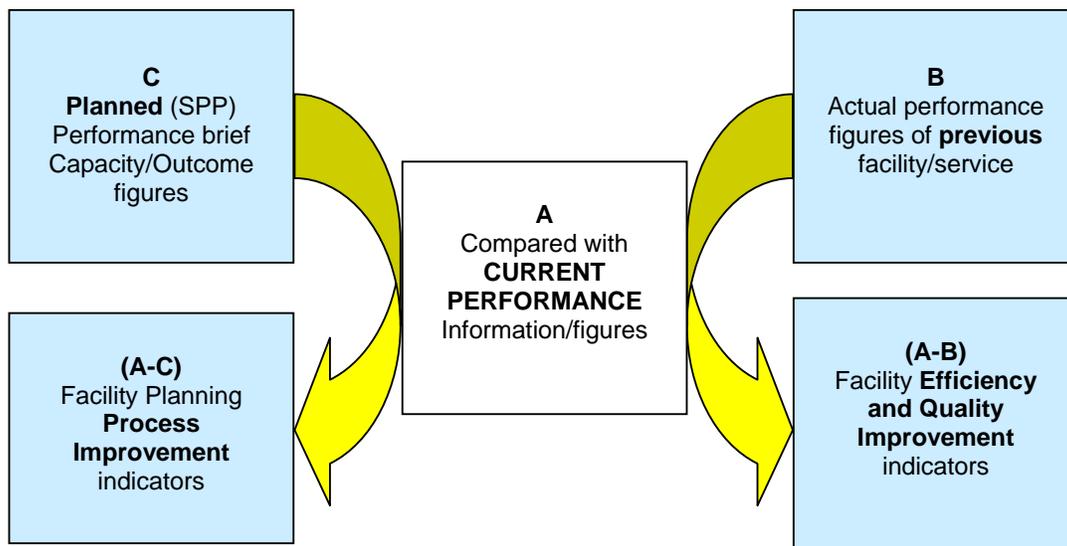
Part 3 - Individual Area Analysis

Part 3 relates to individual functional areas within the facility rather than to the facility as a whole. Particular areas refer to headings within the Health Planning Units (HPU) of the Australasian Health Facility Guidelines. Criteria are divided into Operation, Physical Planning, Materials and Finishes, and Engineering Services.

Part 4 - Service Operation

4.1 Service Performance Data

This section relates to the service performance data for the project. The differences between the current performance figures (A), the figures one year before the implementation/construction stage (B) and the planned (intended) service performance figures (C) are explored.



A - B = Service improvement or deterioration
 A - C = Planning Accuracy/quality

Diagram 2 - POE Information management framework

Part 4.2 Financial Performance

This section facilitates similar comparisons to Part 4.1 and refers to financial performance. It will be important to determine if there are any savings/efficiencies attributable to the new facility.

Tailoring the survey

The survey can be adapted to the requirements of the POE task, including the level and type of data and the focus of the POE. Each part of the survey is designed to be independent.

In general, the information regarding the background of respondents is useful in understanding the perspective from which the information is offered. It will also be relevant to know whether the respondent has knowledge of the planning process, generally, and whether he/she was involved in planning this facility.

For POEs covering individual units, the comprehensive list in the Individual Area Analysis may be modified.

If a project is large and made up of many HPUs it may be appropriate to survey a sample of units that may be particularly representative, or of specific interest. Alternately it may be possible to survey area supervisors for a more global picture. It is important to ensure that the outcomes, scope and focus are carefully considered when determining the participants and the final format of the survey.

Surveys will usually be completed by individuals. However, in some cases a group answer may be received because a respondent has taken the survey to a group meeting and recorded the responses.

The Survey process will generate specific information about the performance of the facility. In some cases the POE will comprise the survey only, with no further detailed data collection or investigation to be undertaken.

Stakeholder interviews

The decision to proceed to stakeholder interviews should be balanced in terms of the potential outcomes versus the resources available for the POE. Stakeholder interviews can be done as individual or group interviews. Stakeholder interviews will provide context for the surveys completed; some completed surveys will need further clarification or greater detail to be obtained.

For example, where two respondents to a POE differ in their opinion regarding the ease of navigating and 'wayfinding' in the facility, it usually becomes necessary to investigate further. It may well be that people get to their destination not by the using the signage but by asking directions from a staff member in the foyer reception area. The problem is thus solved before the unit clinician has been alerted or knows about the issue. This can lead to differing responses between the 'interrupted' reception staff who perceive a problem and the clinicians who believe 'wayfinding' in the facility is adequate. Further clarification through stakeholder interviews may assist.

It may be necessary to interview consumers separately to the service delivery and management respondents. Providing people with a comfortable environment in

which to discuss their issues is paramount. It should be stressed that participation is always voluntary and requires informed consent.

When recording the stakeholder interviews it is important to include examples given and other specific information reported by the respondents. Generalised responses from the survey often require further clarification.

Workshop

An alternative method of gaining stakeholders feedback is to conduct a half or one day workshop to explore the issues raised in a group setting.

SECTION 5 - POE INFORMATION ANALYSIS

Processing the information

Responses to each question in the survey should be entered into a master sheet with a column provided for the comments and emergent themes/issues noted (draft formats are provided in Appendix 2). Emergent themes/problems can be identified and entered by the POE evaluator.

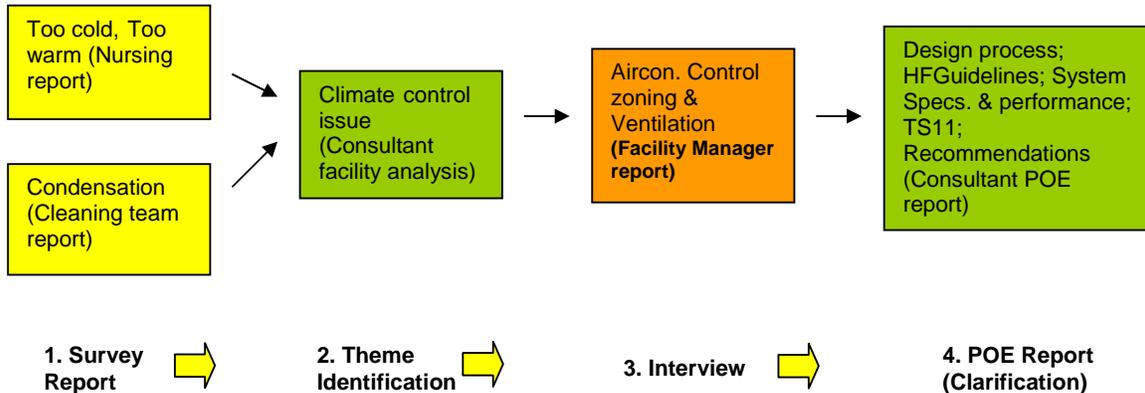


Diagram 3 - Information analysis flowchart

For example, the diagram above illustrates how the issues and problems are developed into POE recommendations.

1. Climate control problems for the facility may be indicated by nursing comments referring to patient complaints of being too cold or too warm plus condensation problems reported by the cleaning manager.
2. The POE issue may be the zoning control in the air conditioning system which can be ascertained from the maintenance manager interview.
3. There may even be some Internal Air Quality measurements taken by facility management.
4. Final POE recommendations regarding climate control can then be made relevant to facility management, standards and guidelines.

Often POE respondents recall and clarify the issues on behalf of other facility users. A broad range of staff/stakeholder responses will usually gather most of the relevant issues, regardless of one current dominating issue being reported. The skill of the evaluator lies in translating the information gathered into facility-related terms for comparison with the baseline through understanding the planning and design process and then recommending possible facility improvements as an outcome of the POE process.

Tips to consider in the analysis

1. It is useful to have a list of the respondent details, and essential to have a floor and master plan of the area being evaluated at hand while examining the responses.
2. Where an element is scored from 1-Unsatisfactory to 5-Excellent performance the pattern of the responses is relevant. One score remote from the main pattern as an outlier may indicate a person with unique knowledge of a problem. The responses should be examined for relevant comments. The issue may then need confirmation at interview. The final decision regarding the score is the responsibility of the evaluator.
3. When collating the information into one form indicate a nil response for later clarity when assessing the responses.
4. Wherever possible when developing an interview question from the survey responses, focus on the issue and the relationship to the facility rather than the person/position who reported it.
5. When interviewing, phrase “open” questions so that people will respond with detailed and specific information.
6. When deciding to bring an issue/problem forward to the interview or workshop phase, identify other places relevant information may be mentioned in the survey to clarify the question.
7. One way the evaluator may ascertain the strength of the required recommendation is from the reported priority setting (high, medium or low).

SECTION 6 - POE FINAL REPORT

Standard POE Report Format

The POE should reflect the focus and scope outlined in the project proposal or format.

Report Framework

Below is a framework for the standard POE report, with brief comments outlining the content required.

1. Table of Contents
2. Executive Summary
3. Introduction
 - a. Purpose of the Evaluation - this should note who has commissioned the study and the purpose of the study.
 - b. Project Information - this should summarise the key project information for the health facility that is the subject of the POE. It should also supply in a standard format the information that summarises the project implementation parameters including:
 - The total project cost at SPP, PDP or other relevant and defined stages, then the final cost at project completion.
 - Program of works including start and finish dates, both as estimated at PDP stage and the final result.
 - Details of the Project Team that implemented the project.
 - Details of the Contractor and the procurement method used.
 - Any other project information relevant to the study and that is collected by the general information proforma.
 - c. Participants in the Evaluation
 - List the POE team members and their respective roles.
 - List the stakeholder representatives and their roles within the health service.
 - d. Outline of the Methodology Used
 - Set out a summary of the site visits, questionnaires, interviews and workshops used to gather stakeholder feedback; documentation may be included in appendices to the report as required.
 - Provide a summary of those who were interviewed or attended the workshop.
 - Provide a summary of the feedback collected, and of any issues that require referral to health department or client for further input or advice.
4. Data Collection and Analysis
 - a. Tools Used - comment on the data collection tools and any of the fields or areas not used and reasons for this. Where relevant, note any particular techniques that were required to obtain results, note any issues arising from use of the data collection tools including where these required modification to achieve their purpose.

- b. Quantitative Data Collection
 - Completed Data Collection Templates in hard and soft copy.
 - Conclusions drawn from analysis including those that have been assessed further in qualitative terms.
- c. Qualitative Data Collection
 - Completed Data Collection Template in hard and soft copy.
 - Conclusions drawn from analysis of qualitative data collected.
- d. Data Analysis
 - A summary of the conclusions drawn from both the quantitative and qualitative data, especially the interrelationships between these.
 - Depending on the primary focus of the POE (e.g. service delivery outcomes, functionality or review of the procurement process), the following framework may be useful in reporting the analysis of the data collected.
 - Services

Health Service Outcomes Achieved: Both the quantitative and qualitative data collected should be evaluated to indicate if and how services outcomes required by the SSP or PDP were achieved.
 - Functionality

Design Issues Raised: A summary of any issues raised that may be directly attributed to a specific design criteria.

Compliance with HFGs: Based on the comparative analysis done prior to the workshop(s) does the project meet the current guidelines and in what area(s) is it deficient?

Compliance with PDP: Does the finished facility match the outcomes required in the PDP and if applicable, what areas require attention?

Compliance with POFP: Comparison should be made between the project documentation and the process of facility planning (POFP) or other specified planning process as determined by the health department or funding authority. This section should note any deviations and their overall effect on the project.

Best Practice Outcomes: Using available benchmark information, the report should indicate compliance or non compliance with these.
 - Procurement Process

Project Implementation: Did implementation of the project follow accepted procedures? This may include compliance with the required planning process, provision of an adequate budget, a realistic program and achievable objectives.

5. Conclusions and Recommendations

Results of Collection and Analysis of Data

- Summarise in key areas as noted above under data analysis.

Key Outcomes and Recommendations from POE

- Outcomes that should be incorporated into future review of the currently required planning process.
- Outcomes that should be incorporated into future review of the current Australasian HFG
- Outcomes that should guide future planning and implementation of health facility projects.
- Any other relevant outcomes or recommendations.

POE Methodology Review

At the completion of the POE process, the Consultant (or the Project Officer, where no consultant is engaged) should prepare a review of this methodology, as used to conduct the POE. A separate but short report to Centre for Health Assets Australasia UNSW will include the following details in regard to the evaluation study:

- A brief description of the application of the methodology;
- A summary of the strengths and weaknesses of the methodology;
- Definitive recommendations for improving the process for the future.

Further Reading

Baird, G, Gray, J, Isaacs, N, Kernohan, D & McIndoe, G 1996, 'Preface' In: Baird, G, Gray, J, Isaacs, N, Kernohan, D & McIndoe, G (Eds.) *Building Evaluation Techniques*, McGraw-Hill, New York, USA, p.vii.

Carthey, J 2006, 'Post-Occupancy Evaluation: Development of a Standardised Methodology for Australian Health Projects', *International Journal of Construction Management*, July, pp 57-74.

Clarke, T & Nash, T 2007, *POEHealth: An Integrated Approach to Improving Health Care Environments*, Presentation, Faculty of Health & Social Care Sciences, Kingston University & St George's, University of London, UK.

Cooper, I 2001, 'Post-Occupancy Evaluation - Where Are You?', *Building Research & Information*, vol.29, no.2, pp.158-163.

Führer, G 2004, 'Healthy House'. Available at: <http://www.dguht.de/verein/vorstand.html> [Accessed on 7 Sep 2006].

Hirota, K 2007, *A Study of Post Occupancy Evaluation Questionnaires for Indoor Air Quality and Infection Control at Healthcare Facility*, Roomvent 2007, Helsinki, Finland, 13-15 June.

Jeon, Y 2004, 'The Application of Grounded Theory and Symbolic Interactionism', *Scandinavian Journal of Caring Science*, vol.18, pp.249-256.

Keen Engineering 2007, Post Occupancy Evaluation Project Report, *Completion of Phase 1: POE Protocol Development*, North Vancouver, Canada.

Minichiello, V et al 1999, *Handbook for Research Methods in Health Science*, Addison-Wesley, Sydney, Australia.

NSW Treasury 2004a, '10 Steps to Procurement Process - Construction'. Available at: <http://www.treasury.nsw.gov.au/procurement/10-step-const.htm> [Accessed 13 July, 2005].

NSW Treasury 2004b, 'Total Asset Management: Post Implementation Review Guideline'. Available at: http://www.treasury.nsw.gov.au/tam/pdf/post_implementation_review.pdf [Accessed 13 July 2005].

NSW Treasury 2005a, 'NSW Treasurer's Budget Speech'. Available at: <http://www.treasury.nsw.gov.au/bp05-06/bp1/budspch.htm> [Accessed 9 August 2005].

NSW Treasury 2005b, '*Policy Directive: Construction Procurement Policy - NSW Department of Health*'. Available at: http://www.health.nsw.gov.au/policies/PD/2005/pdf/PD2005_373.pdf [Accessed 13 July 2005].

Preiser, WFE 1995, 'Post-Occupancy Evaluation: How to Make Buildings Work Better', *Facilities*, vol.13, no.11, p.19.

Preiser, WFE 2002, 'Continuous Quality Improvement Through POE Feedback', *Journal of Corporate Real Estate*, vol.5, no.1, pp.42-56.

Preiser, WFE, Rabinowitz, HZ & White, ET 1988, *Post-Occupancy Evaluation*, Van Nostrand Reinhold, New York, USA.

Shepley, MMS 1997, 'Design Evaluation' In Marberry, SO (Ed.) *Healthcare Design*, John Wiley, New York, USA, pp.73-104.

Stanley, L 2001, 'Preface', *Learning from our Buildings: A State-of-the-Practice Summary of Post-Occupancy Evaluation*, National Academy Press, Washington DC, USA, pp.v-vi.

Strauss, AL & Corbin, J 2005, *The Basics of Qualitative Analysis: Techniques and Procedures for Developing Grounded Theory*, Sage Publications, Thousand Oaks, California, USA

University of New South Wales & NSW Health (2004), *NSW Health Facility Guidelines: Post Occupancy Evaluation Guideline*, Unpublished work, University of New South Wales, pp.1-30.

Vischer, J (2001), 'Post-Occupancy Evaluation: A Multifaceted Tool for Building Improvement', *Learning from our Buildings: A State-of-the-Practice Summary of Post-Occupancy Evaluation*, National Academy Press, Washington DC, USA, pp.23-34.

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