A PLANNING GUIDE FOR POST OCCUPANCY EVALUATION

THE ABCs OF POEs

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CIHR IRSC Canadian Institutes of Health Research / Instituts de recherche en santé du Canada
Strategy for Patient-Oriented Research SPOR Putting Patients First
R&D
Ontario MINISTRY OF HEALTH AND LONG-TERM CARE
RYERSON UNIVERSITY
STRONGBOW STRATEGIES
CARE RESEARCH & EVALUATION
ANCHORKEY PRESS






The Bridgepoint Hospital Redevelopment.

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Funding Acknowledgment: Dr. Celeste Alvaro's program of research was funded by a Canadian Institutes of Health Research (CIHR) Partnerships for Health System Improvement (PHSI) grant via the Strategy for Patient-Oriented Research and the Rx&D Health Research Foundation (Fostering Innovation in Healthcare Initiative) with partnered funding from the Health Capital Investment Branch of the Ontario Ministry of Health and Long Term Care.

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Dr. Celeste Alvaro holds a Ph.D. in experimental social psychology from Simon Fraser University. She is the founder of CARE, an applied research and evaluation consulting firm that specializes in assessing how architecture and the built environment affect behavior, well-being and health. She maintains a position as Adjunct Professor in the Department of Architectural Science at Ryerson University.

Her expertise includes research design and methods, the ability to engage interdisciplinary research teams, post occupancy evaluation and the evaluation of large scale interventions.

Celeste led a program of research in architecture and health at the Bridgepoint Collaboratory for Research and Innovation where she created and executed the post occupancy evaluation of Bridgepoint Hospital, secured over $1M in research funding and developed an interdisciplinary training lab in design and health. She currently provides research expertise and leads the post occupancy evaluation of capital redevelopment projects.

Celeste has presented at the 2012-2014 Canadian Centre for Healthcare Facilities Conferences; the 2013 World Congress on Design and Health in Brisbane, Australia; the 2014 Healthcare Design Conference in San Diego, and the 2015 European Healthcare Design Conference in London, England. Publications include the report on the Bridgepoint POE and manuscripts in *World Health Design and Health Environments Research & Design (HERD) Journal*.

DEYAN KOSTOVSKI, AMA

Communications Strategist, Strongbow Strategies

Deyan holds an Honours Bachelor of Arts, specializing in Political Science, from the University of Toronto and a Master of Arts in Advanced European and International Studies from l'Institut Européen des Hautes Études Internationales in Nice, France.

Deyan's communications expertise includes developing knowledge translation strategies, concept design initiatives, as well as media and public relations exercises. As an independent consultant, Deyan has provided strategic council to healthcare organizations, foreign investment agencies, publicly traded companies and major political parties.

As the knowledge translation strategist for the Bridgepoint Active Healthcare POE, Deyan was a co-author of the final report overseeing its production. He was also responsible for the creation of the knowledge translation activities that included presentations to governments and health authorities, as well as targeted engagement and dissemination sessions with non-governmental organizations and architecture firms.

Deyan was a guest presenter at the 2014 Healthcare Design Conference in San Diego and the 2015 European Healthcare Design Conference in London, England.

ANDREA WILKINSON, PHD

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Specialist in Aging and Cognition

Dr. Andrea Wilkinson holds a Ph.D. in experimental psychology with a specialization in aging and cognition from Ryerson University. Andrea completed a postdoctoral fellowship at the Bridgepoint Collaboratory for Research and Innovation. She is currently an AGE-WELL funded postdoctoral fellow at the University of Toronto where she is exploring the intersection between aging, cognition and the built environment.

Andrea was involved in all phases of the Bridgepoint POE and brings this expertise to other POE projects in her work with CARE. Andrea's research specialization and expertise includes the preparation of research materials and data collection protocols, software programming, research coordination, patient and staff recruitment, statistical data analysis, and the dissemination of results.

Andrea has experience presenting at national and international conferences. Her work has been published in *Psychology and Aging, Brain and Cognition,* and *Health Environments Research & Design (HERD) Journal.*

SARA GALLANT, PHD (C)

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Sara is pursuing a Ph.D. in experimental psychology with a specialization in aging and cognition from Ryerson University. Broadly speaking, she has a passion for understanding how our ability to make sense of the world around us changes as we get older and establishing methods for promoting independent living in late life.

Sara's graduate training and experience in conducting post occupancy evaluations of healthcare facilities have provided her with a strong research skillset including: research design, preparation of ethics and data collection protocols, survey development, statistical analysis, scientific writing, and the ability to communicate research findings to both a scientific and general audience.

Sara was a key contributor to the Bridgepoint POE and her expertise continues to be a valuable asset to the other POE projects that are being conducted by CARE. Specifically, Sara's role includes the preparation of testing materials, interviewing of participants across testing sites, data organization and analyses and the dissemination of results.

PAULA GARDNER, PHD

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Paula Gardner is an Assistant Professor in Health Sciences at Brock University. She has a PhD in Public Health from the University of Toronto and an active program of research examining the intersection of health and place. Paula has published her work in books and journals and presented nationally and internationally.

Paula is a faculty fellow with the Centre for Critical Qualitative Health Research at the University of Toronto where she has been recognized for her qualitative health research. She teaches national and international workshops in qualitative methods with a focus on the 'go-along interview method' as a creative and effective strategy for capturing people's experience of places. She has used this method extensively both in the community and to explore the patient experience in healthcare environments.

As a co-investigator on the Bridgepoint POE, Paula was key in conceptualizing the design, implementation, training, recruitment, data collection and organization, as well as the interpretation and analysis of the go-along qualitative interviews with patients.

BACKGROUND

Governments across Canada earmark billions of dollars for healthcare facility redevelopment projects and it is logical to expect that with any sizable financial commitment, there would be an attempt to identify the potential return on their investment. However, very little empirical evidence exists on how building design can foster better health outcomes for patients and up until now governments have not been in a position to accurately determine if their healthcare investments are producing the expected dividends.

All of this is about to change.

Some forward thinking jurisdictions are now mandating that healthcare redevelopment projects include a required post occupancy evaluation (POE). This bold step will help us understand what design elements work best and in what context. As healthcare infrastructure is modernized is it essential that we heighten our understanding of the full impact of how design affects health outcomes. We can only truly discover what works and what doesn't work, for whom and in what context, by analyzing evidence gathered from research and how it relates to the healthcare facility environment.

Health capital investment projects are unique, they differ in size and scale, they can be urban or rural, they differ in purpose and they cater to different patient populations. As a result, the design intentions, design elements and outcomes to be assessed will differ across healthcare redevelopment projects. Nevertheless, the approach to creating a POE can be standardized and this guide will help you do that.


Drawings. Photo by: Maris Mezulis

ABOUT THIS PLANNING GUIDE

WHAT IT IS

This planning guide is your toolkit. It will help you lay the foundation for a successful POE that will assess the impact of the design of your healthcare facility on patient, staff and visitor psychosocial well-being, as well as behavioural and health related outcomes. This guide will be your first steps in understanding how patients feel when they are in various spaces throughout the healthcare facility, what they do in those spaces and how often they frequent these spaces.

Your role is to use this guide to gather all of the required information that your evaluation team has identified as being a priority as they will need it to begin the next stages of the process that will include developing a POE framework and the data collection materials – surveys, interview guides and observations tools.

This workbook includes exercises that will help you understand the steps in the POE processes, outline the type of care that is delivered at your healthcare facility, explain the redevelopment project and the associated timelines, document the design intentions, identify the roles and responsibilities for key individuals, prioritize the spaces in the redevelopment project that require the most attention and plan various communications strategies.

For your convenience and to help you understand the context of some of the exercises, a glossary of terms can be found on page 64.

WHAT IT IS NOT

This is not a POE framework that includes a list of questions, surveys or other evaluation techniques. That is something that your trained evaluators will create using the information gathered in this guide.

This is not a guide that will help you evaluate the operational effectiveness of the new healthcare facility. Topics such as energy efficiency, LEED certification, lean engineering or traditional clinical and functional health outcomes – slips and falls, code yellows, infection and discharge rates are not included in the scope of work.

WHO IS THIS PLANNING GUIDE FOR?

Regardless of its size and scope, a redevelopment project always gathers a diverse group of experts. Redevelopment teams usually consist of healthcare planners, architects, healthcare executives, design and compliance specialists, evaluators and construction crews.

This guide is designed to harvest information from the various experts that are on your redevelopment team and is a must bring to every redevelopment meeting. Ideally, the individual from the healthcare facility leading the redevelopment project or their direct subordinate would be the one compiling all of the information in this guide.

WHO CONDUCTS THE POE?

An important element to executing a POE, is the question of who conducts the POE. In order to guarantee the integrity of the data, the evaluators must have research expertise in methods and measurement, superior data analysis skills, research ethics that are beyond reproach and a sizeable human resources network that is capable of conducting the field research.

Furthermore, the most essential factor is that the evaluators are unbiased and lack a vested interest in the outcome. An established partnership with the healthcare facility under study and the architects responsible for facility design is vital to the POE. However, a fundamental concept in evaluation research is to ensure that it is conducted by an independent third party that is not beholden to the healthcare facility or architectural firm.

Researcher conducting naturalistic observation. Photo by: William Suarez

WHEN SHOULD THE POE ACTIVITIES BEGIN?

It will be most advantageous for you to incorporate POE planning during the earliest stages of your redevelopment project. This guide represents the first step to completing your POE. In addition to gathering valuable information about the redevelopment project it is also sensible to include your evaluators at team meetings and share information with them on a regular basis.

To maximize the impact of the POE, preconstruction data collection in the existing facility should begin approximately a year before the commencement of construction. Chapter 6, entitled Redevelopment Timelines, gives you an opportunity to map out all of the major events in the redevelopment process and overlap key dates and milestones with essential POE benchmarks.

WHAT ARE THE IMPLEMENTATION PHASES OF A POE?

DEVELOPMENT OF A POE FRAMEWORK

The POE framework is a document that outlines the approach to implementing the POE. It should include an evaluation design with the appropriate research methods to assess the impact of the healthcare facility design on selected outcomes of relevance to the redevelopment project.

DEVELOPMENT OF DATA COLLECTION MATERIALS

Data collection materials include surveys, interview guides, naturalistic observation templates, and other measurement tools as well as recruitment protocols and consent forms.

COORDINATION AND EXECUTION OF DATA COLLECTION

Working in tandem with the healthcare facility staff, particularly the project liaison manager, the data collection phase would include participant recruitment, collecting the data, research coordination and scientific oversight on the processing and storage of the data.

DATA ANALYSIS AND SYNTHESIS OF FINDINGS

This is the time period when all of the data that was collected is analyzed.

REPORTING

Based on the agreement between the evaluation team and the healthcare facility this phase can include various forms of reporting, for example, written reports, oral presentations and workshops. The timing for these reports can also vary, however it is expected that regular status updates will be provided as well as a final written report that will be presented to the healthcare facility and to the government - either the Ministry of Health or regional health authorities.

It is important for the evaluators to understand the context of care that will shape the design of the new facility, selected spaces or areas to undergo redevelopment.

Understanding the context of care is important because it influences the way in which the POE is designed and implemented. For example, it has an impact on the selection of outcomes to be assessed, in determining the potential sample size, and the abilities and limitations for patient participation.

In this section you will be asked to provide information about the healthcare facility, patients and staff.

EVALUATORS NEED TO KNOW ABOUT

The healthcare facility:

- there may be certain design elements and spaces that will require extra attention
- if they treat a specialized patient population like women, veterans or children that may influence the type of questions that are asked

The patients:

- if they suffer from a neurological condition or are severely medicated they may not be able to complete the survey
- if they have mobility constraints they may not be suitable participants for a go along interview
- by knowing the number of patients that are treated in the healthcare facility they will be able to identify the appropriate sample size of participants and the most effective ways to collect data

The staff:

- there needs to assurances that the results are not skewed by an over sampling of a certain department or employee group
- by knowing the number of staff employed in the healthcare facility they will be able to identify the appropriate sample size of participants
- not every staff member requires a computer to complete their duties there will be different ways to have staff participate in data collection

Please provide the following information about the HEALTHCARE FACILITY:

1. Type of healthcare facility (select all that apply):

○ Acute Care	○ Home for the Aged (Seniors)	○ Primary Care
○ Ambulatory Care	○ Long-term Care	○ Rehabilitation
○ Cancer Care	○ Mental Health	○ Respite Care
○ Children	○ Paediatric	○ Veterans/Military
○ Complex Continuing Care	○ Palliative	○ Women's Health
○ Other		

2. Please select the type of redevelopment that best represents your project.

   a. Complete demolition of the existing healthcare facility and construction of a brand new facility
   b. An addition to an existing facility
   c. An addition to an existing facility with partial demolition of the existing facility
   d. Other

3. In which setting is the redevelopment taking place?

   a. Urban b. Suburban c. Rural d. Remote

4. The healthcare facility is:

   a. Public b. Private c. Hybrid (both public and private services are provided)

5. In order to develop the proper methods and measures for data collection, it is important to know the number of patients available from which the evaluators can sample for inclusion and participation in the POE.

   Please enter the estimated number of in patients that treated at the healthcare facility

   Per month _____ Per year _____

6. To better prepare for time constraints the evaluators will need to know the average length of stay. Discharge rates will dictate how much time evaluators may have with patients and the window of opportunity they have to collect data.

   Please enter the average length of stay for inpatients. _____ days

   Please enter the average length of stay for outpatients. _____ hours

Please provide the following information about the PATIENTS:

7. Medical Conditions (select all that apply):

The evaluators need to understand the complexity of the patients and their suitability to participate in the POE. Furthermore, they need to understand what type of accommodations may be required to facilitate their participation.

SINGLE MEDICAL CONDITION

Patients typically have **one** medical condition only.

TWO MEDICAL CONDITIONS

Simultaneous presence of **two** medical conditions.

COMPLEX COMORBIDITY

Simultaneous presence of **three or more** medical conditions; complexity relates to the number and/or severity of the comorbid conditions of a patient.

Please describe

8. Patient characteristics:

Please check other attributes that your patients may have that could limit their participation:

	YES	NO
Ability/independent completion of the surveys (ability to provide informed consent; can sit for at least 30 minutes at a time; cognitive ability)		
Require translation services		
English speaking		
Are non-verbal		
Have a visual impairment		
Have a hearing impairment		

9. Mobility (select all that apply):

Walking unassisted/ without aid	Walking with an aid (cane/walker)	Walking with assistance	Wheeling: manual wheelchair	Wheeling: motorized device OR requires assistance	Confined to bed, Non-mobile

Please provide further details if your patients have other mobility challenges not listed above. Patient mobility information is useful in identifying how patients use certain spaces in the healthcare facility and their suitability to participate in go along interviews.

10. Age range of the patient population (select all that apply):

Infants	Children	Adolescents	Adults	Older Adults	All Ages

Please provide the following information about the STAFF:

This information below is being gathered to ensure that the data is representative of the hospital staff at which it was collected.

11. Staff (fill in the blank):

Total number of staff		Number of contract staff	
Number of full-time staff		Number of permanent positions	
Number of part-time staff		Number of temporary positions	

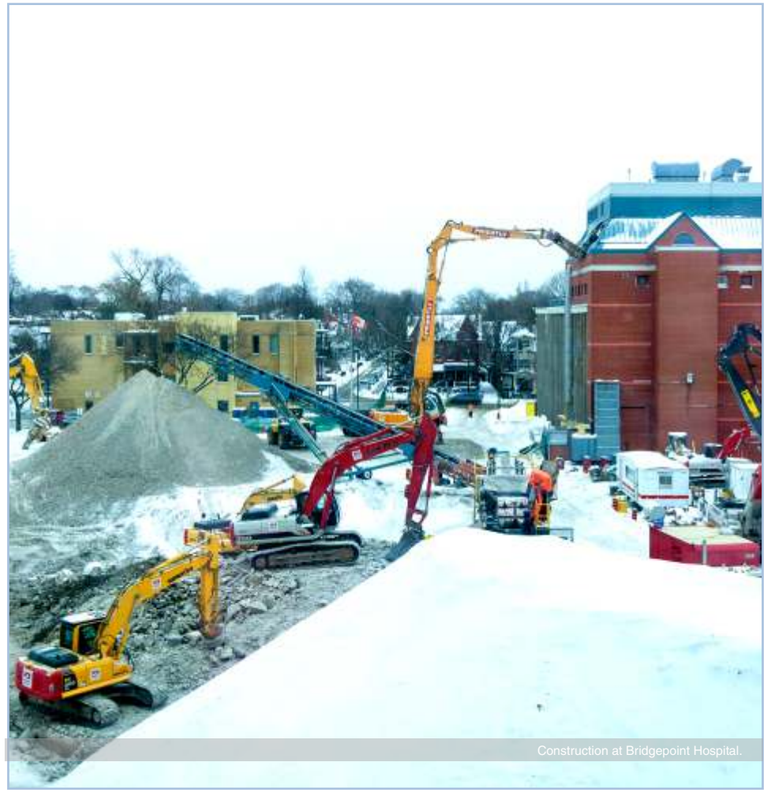
12. Staff by category (select all that apply and enter the number of staff per category) It is important to identify the number of staff per category so that it can be cross-referenced with the number of people who participate in the evaluation. You need to be able to determine if the data collected is an accurate reflection of the staff composition.

Administrative Services (Admitting and Utilization, Finance, HR)		Medical Administration Services	
Ambulatory Care		Nursing	
Client Care Attendant (Personal Support Worker)		Occupational Health & Wellness	
Clinical Psychologist		Organizational Development	
Clinical Staff (physiotherapist, physiatrist)		Patient Care Coordinator	
Communications/Public Affairs		Patient Relations & Risk	
Corporate Performance & Process Improvement		Pharmacy	
Environmental Services		Physicians	
Family Health Team		Psychiatrist	
Food Services		Quality & Patient Safety	
Health Information & Privacy		Recreational Therapists	
Infection Control		Redevelopment	
Information Management		Research	
Information Technology		Spiritual Care	
Inter-professional Education		Volunteers	
Leadership (Supervisor, Manager, Director, Executive)		Other (please specify, number)	
Library			
Materials Management			

Although we can draw inspiration, motivation and comparisons from various redevelopment projects each one in itself is unique. They will differ in size and scale, differ in purpose and be located in different parts of the country. The distinctiveness of these projects mean the POEs will be just as exceptional, there is no cookie cutter POE. But there can be a standardized approach on how to craft and implement POEs.

The information shared in the Context of Care chapter will provide your evaluators with insight on the operations of the existing healthcare facility, its staff and patients. Understanding the context of care allows your evaluators to better understand the goals and rationale for the redevelopment.

In this chapter you will be asked to provide background information on the redevelopment project.



Construction at Bridgepoint Hospital.

1. Please outline the Vision, Mission, and Values of the redevelopment project.

Vision:

Mission:

Values:

2. Please explain the scope of the redevelopment. Include any strategic objectives and key goals prescribed by investors, funding agencies, government departments or other relevant stakeholders.

3. Please list the service areas affected by the redevelopment and include any new services that are being introduced.

Although this endeavour is called a post occupancy evaluation, the work should actually begin well before the construction starts. In this planning guide you should always keep in mind that post occupancy evaluation is a reference to the evaluation of a healthcare facility, and a key component of that evaluation is a comparison to the pre-existing facility. Therefore, post occupancy evaluation activity includes work done pre and post construction.

Due to the importance of preconstruction work, post occupancy evaluators are to be included from the onset of the redevelopment project. Preconstruction and postconstruction assessments are required to better establish a cause and effect relationship between architectural design and health outcomes. It is essential that the evaluators are present and active from the inception.

The framework, methods and measures are as much a tool for the design process as they are tools for pre and post occupancy evaluation. In the planning and design phase, it is customary for architects to conduct visioning sessions and engage with patients, staff and other user groups. The methods and tools that have been developed can be used in these early planning and design stages of redevelopment. This process will capture patient, staff and stakeholder experiences, these findings will better shape and identify the optimal design outcomes.

The following exercise is designed for you to identify key POE deliverables and how they relate to the construction timeline. The execution of the POE needs to anticipate and respond to the key milestones in the construction timeline.

One of the most valuable outcomes of this exercise is to identify the windows of opportunity where the evaluators can conduct the data collection phases of the POE.

Plan the work, and then work the plan.

When budgeting time for the POE, it is important to map out the important milestones in the redevelopment project. To get a better sense of the timeline, please fill in the dates that correspond to the various stages of the redevelopment.

THE DESIGN / PROJECT IMPLEMENTATION PROCESS*

STAGE I
MASTER PROGRAM/ MASTER PLAN

Date

VISIONING SESSIONS & USER GROUPS

Date

STAGE II
FUNCTIONAL PROGRAM

Date

TEST FIT

Date

STAGE III
PSOS

STAGE IV
DESIGN STAGE

SCHEMATIC DESIGN

Date

PLANNING & SCHEMATIC DESIGN

DESIGN DEVELOPMENT

Date

DETAILED DESIGN

CONTRACT DOCUMENTS (WORKING DRAWINGS)

Date

TENDER / BID

Date

STAGE V
CONTRACT ADMINISTRATION (CONSTRUCTION)

Date

CONSTRUCTION

BREAKING GROUND

Date

SUBSTANTIAL COMPLETION

Date

STAGE VI
OCCUPANCY

Date

OPENING/MOVE-IN DAY

Date

FINAL LANDSCAPING

Date

FULL COMPLETION

Date

THE POE IMPLEMENTATION PROCESS*

SECURING FUNDING FOR THE POE

Date

EARLY STAKEHOLDER ENGAGEMENT

Date

STAKEHOLDER ENGAGEMENT UPDATE

Date

POE FRAMEWORK AND PLANNING GUIDE

Date

DURATION 2-4 MONTHS

DEVELOPMENT OF DATA COLLECTION MATERIALS

Date

DURATION 3-6 MONTHS

PRETEST DATA COLLECTION

Date

1 YEAR PRE-CONSTRUCTION
DURATION 3-6 MONTHS

POST-TEST DATA COLLECTION

Date

1 YEAR POST-OCCUPANCY
DURATION 3-6 MONTHS

DATA ANALYSIS

Date

DURATION 2-4 MONTHS

REPORTING/ COMMUNICATION OF RESULTS

Date

DURATION 3-4 MONTHS

* The POE Implementation Process is to be conducted in tandem with the Design and Implementation Process. Start by completing the first column on the left in full, and then proceed left to right.

Content credit: Robin Snell, *Parkin Architects*; Celeste Alvaro, *CARE*; Ben Embir, *HOK Architects*

REDEVELOPMENT TIMELINES

There are many outcomes that can be assessed across the existing, to-be-constructed and/or comparison facilities. However, not all potential outcomes of interest to the healthcare facility are related to the architectural and/or interior design of the facility. Do not limit your POE to the measurement of established healthcare metrics. Let theory, design intentions and the user experience guide the selection of outcomes.

This method better allows for the attribution of any observed outcomes to the design. It also assists teams to identify and select the most important outcomes for the project. There will not be enough time to measure everything and therefore, you will need to be targeted in your approach.

It is therefore necessary to detail the overarching design intentions for the new healthcare facility or redevelopment project. Furthermore, you will need to document the design intentions for the priority spaces that you have identified, describe the adjacent areas and activities, and list the appropriate user which will be active in that space.

Please find below a list of definitions that will provide further clarity to the terms and questions that are present in this chapter.

Space	The targeted area that is being studied (entrance, patient room, seating areas, cafeteria, outdoor terrace, workspace, physiotherapy gym, and other locations).
User	The individual that is in the space being evaluated. A user can be a patient, staff, a visitor or a member of the community.
Adjacencies	The areas that are proximal to the space under study. Observing and documenting the context of its use, activity and animation.
Design	A plan or drawing produced to show the look and function or workings of a building.
Design Intentions	An explanation of what the design of the built environment is intended to achieve.
Design Elements	Key features that enable the realization of the design intentions.
Anticipated Outcomes	The expected results on how users are responding to the built environment. They can be physical or mental health, well-being, program or process related results.

1. What are the overarching design intentions for the new facility?

2. Design Intentions and Anticipated Outcomes

Redevelopment projects include unique and typical spaces that perform a variety of functions for different users (patients, staff, visitors and community). Please identify the spaces of greatest importance to your redevelopment project, the intended users (it may be more than one type), the design intentions associated with each space, the design elements, and anticipated outcomes.

This exercise can be as detailed as required. However, please remember that you probably will not have enough time or budget to measure everything. Therefore, if you need to prioritize, you can scale down this exercise to only include key spaces that are of greatest significance to the overall project or include spaces where very little empirical evidence exists.

The information gathered in this exercise about spaces will be instrumental for your evaluation team, as they assess the impact of the built environment on user outcomes. The outcomes will vary and be present in many fields including mental health, behaviour, sense of well-being, social interaction, physical health, process and programs. Your evaluation team needs to focus on the design of the spaces or built environment, because that is what enables the outcomes.

In the User section please inscribe the letter that corresponds to the appropriate user group.

P = Patient **S** = Staff **V** = Visitor **C** = Community

SPACE OF IMPORTANCE	DESIGN INTENTIONS	KEY DESIGN ELEMENTS	INTENDED USERS	ADJACENCIES	ANTICIPATED OUTCOMES
The targeted area that is being studied (entrance, patient room, seating areas, cafeteria, outdoor terrace, workspace, physiotherapy gym, and other locations).	An explanation of what the design of the built environment is intended to achieve.	Key features that enable the realization of the design intentions.	It is the individual that is in the space being evaluated. A user can be a patient, staff, a visitor or a member of the community.	The areas that are proximal to the space under study. Observing and documenting the context of its use, activity and animation.	The expected results on how users are responding to the built environment. They can be physical or mental health, well-being, program or process related results.
Cafeteria	**Welcoming space that is multi-purpose, not just for food consumption**	**Big bay windows with direct views to the outdoors, colourful and moveable furniture to accommodate for different events, open concept kitchen**	**P, S, V, C**	**Library, retail stores, outdoor terrace**	**S – improvements in social interactions reinforcing a positive work environment P – increased sense of bravery, a place where they can go by themselves, but not feel alone**
Seating areas	**Welcoming space, open sightlines, easy intuitive sense of navigation, maintaining connection to the outdoors**	**Large window, natural light, clear directional indicators, easy to navigate entry**	**P, V, C**	**Information desk, staircase, retail stores**	**V – increase of a sense of well-being, calm, confidence, perceptions of the facility as being a place of wellness P – brave, inspired, willing to reengage in life and the outside**

DESIGN INTENTIONS

SPACE OF IMPORTANCE	DESIGN INTENTIONS	KEY DESIGN ELEMENTS	INTENDED USERS	ADJACENCIES	ANTICIPATED OUTCOMES

SPACE OF IMPORTANCE	DESIGN INTENTIONS	KEY DESIGN ELEMENTS	INTENDED USERS	ADJACENCIES	ANTICIPATED OUTCOMES

SPACE OF IMPORTANCE	DESIGN INTENTIONS	KEY DESIGN ELEMENTS	INTENDED USERS	ADJACENCIES	ANTICIPATED OUTCOMES

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SPACE OF IMPORTANCE	DESIGN INTENTIONS	KEY DESIGN ELEMENTS	INTENDED USERS	ADJACENCIES	ANTICIPATED OUTCOMES

3. The Existing vs The New Facility

If your redevelopment project includes an existing facility in which pretest data will be collected, it is important to consider comparable spaces to those you identified as those of greatest importance for the POE at the new or to-be-redeveloped facility.

There may not be a directly comparable space (visitor lounge) but there may be an area that currently serves the same purpose (an area adjacent to the patient rooms where visitors congregate).

Please identify the comparable spaces at the existing facility and note the similarities and/or differences in users, adjacencies, and design elements relative to the new or to-be-redeveloped facility.

EXISTING SPACE	CURRENT USERS	ADJACENCIES	KEY DESIGN ELEMENTS	SIMILARITIES/ DIFFERENCES

Traditionally, POE has focused on the comparison of administrative database outcome measures before and after the construction of a new facility. These outcomes may or may not be attributable to the new facility design.

4. Consider the anticipated outcomes you identified on the previous pages. Do any of the outcomes have a parallel to the data that is currently captured in existing administrative databases?

   If so, please list any outcomes that you may have a particular interest in assessing from these administrative databases along with the department responsible for tracking these outcomes. Most evaluation teams will assume that you have in house capabilities to compare administrative outcomes before and after the move to the new facility, as these are typically tracked and reported to the Ministry of Health. However, your evaluator can help to refine the list to those that make the most sense for your project.

OUTCOME MEASURE	DEPARTMENT RESPONSIBLE
Employee Sick Days	**Human Resources**
Critical Incidents – slips, falls, infections	**Patient Quality and Safety**

OUTCOME MEASURE	DEPARTMENT RESPONSIBLE

A healthcare facility is more than just a collection of patient rooms and clinical care areas. Physical and mental health improvements can occur anywhere in the cafeteria, at seating areas and in outdoor spaces.

If your design intention is to create a place of wellness and improve the entire user experience then we need to understand what happens in other parts of the facility or campus. How are people using these spaces and what are they feeling when they are in these spaces?

In this section you will be challenged to list all of the current and anticipated daily activities that take place in various spaces throughout the facility or campus.

Your evaluator will use this information to develop a suitable methodological approach to examine the user experience in these area and the associated outcomes.

Activity in the labyrinth, Bridgepoint Hospital. Photo by: Tom Arban. Architects of Record: Stantec Artchitecture/KPMB Architects, design & compliance architect, HDR Architects/Diamond Schmitt Architects

CAFETERIA

Cafeteria in Bridgepoint Hospital. Photo by: Tom Arban Architects of Record: Stantec Artchitecture/KPMB Architects, design & compliance architect, HDR Architects/Diamond Schmitt Architects

1. Who uses the space?

2. What do they do there?

3. Where on the site is it located?

4. What are the main design elements and features?

5. What are the constraints to use? (time of day, season, etc.)

6. Other:

OUTDOOR AREAS

Outdoor space at the BC Cancer Centre North.
Photo by: Bob Matheson
Architects of Record: KRA Architecture

1. Who uses the space?

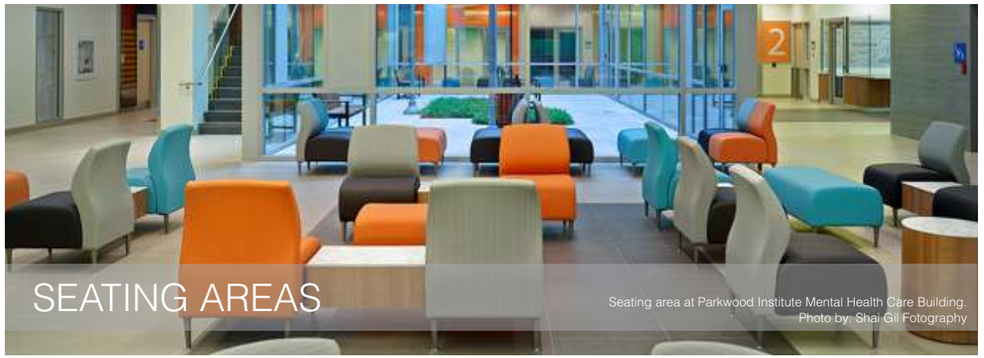
2. What do they do there?

3. Where on the site is it located?

4. What are the main design elements and features?

5. What are the constraints to use? (time of day, season, etc.)

6. Other:



SEATING AREAS

Seating area at Parkwood Institute Mental Health Care Building.
Photo by: Shai Gil Fotography

1. Who uses the space?

2. What do they do there?

3. Where on the site is it located?

4. What are the main design elements and features?

5. What are the constraints to use? (time of day, season, etc.)

6. Other:

STAFF LOUNGES

Lounge at the Robert Ho Research Centre, Vancouver General Hospital.
Howard Waisman photo. KRA Architecture.

1. Who uses the space?

2. What do they do there?

3. Where on the site is it located?

4. What are the main design elements and features?

5. What are the constraints to use? (time of day, season, etc.)

6. Other:

VISITING LOUNGES

Visiting lounge at Bridgepoint Hospital. Tom Arban photo.
Stantec Artchitecture/KPMB Architects, design & compliance architect.
HDR Architects/Diamond Schmitt Architects – architects of record.

1. Who uses the space?

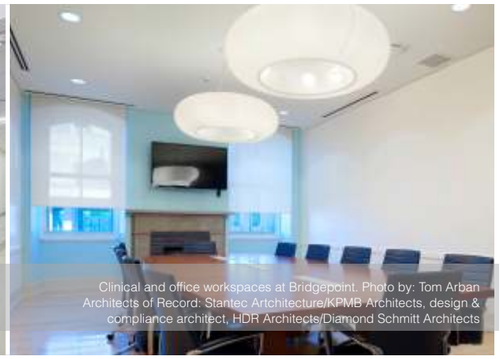
2. What do they do there?

3. Where on the site is it located?

4. What are the main design elements and features?

5. What are the constraints to use? (time of day, season, etc.)

6. Other:



WORKSPACES

Clinical and office workspaces at Bridgepoint. Photo by: Tom Arban
Architects of Record: Stantec Artchitecture/KPMB Architects, design & compliance architect, HDR Architects/Diamond Schmitt Architects

1. Who uses the space?

2. What do they do there?

3. Where on the site is it located?

4. What are the main design elements and features?

5. What are the constraints to use? (time of day, season, etc.)

6. Other:

OTHER SPACES

Bridgepoint Hospital.
Photo by: Margot de Man and Ryan Alexander,
Department of Architectural Science, Ryerson University.

1. Specify the location, space or room that is being evaluated.

2. Who uses the space?

3. What do they do there?

4. Where on the site is it located?

5. What are the main design elements and features?

6. What are the constraints to use? (time of day, season, etc.)

7. Other:

OTHER SPACES

Southwest Centre for Forensic Mental Health Care. Photo by: Shai Gil Fotography
Architects of Record: Parkin Architects Limited in Joint Venture with architects Tillmann Ruth Robinson

1. Specify the location, space or room that is being evaluated.

2. Who uses the space?

3. What do they do there?

4. Where on the site is it located?

5. What are the main design elements and features?

6. What are the constraints to use? (time of day, season, etc.)

7. Other:

OTHER SPACES

McMaster Children's Hospital, Emergency Department.
Photo by: Richard Johnson Photography
Architects of Record: Parkin Architects Limited

1. Specify the location, space or room that is being evaluated.

2. Who uses the space?

3. What do they do there?

4. Where on the site is it located?

5. What are the main design elements and features?

6. What are the constraints to use? (time of day, season, etc.)

7. Other:

The overall evaluation design for the POE will depend on the specifics of the healthcare redevelopment project. If you are moving patients from an existing facility to a new facility, a pretest posttest (pre-construction and post-construction) quasi experimental design is appropriate. If you are constructing a new facility where none previously existed, a posttest only design might be more suitable. In either case, it may make sense to include a comparison or control facility within the overall evaluation design. What happens if there is a new addition to be constructed at an existing facility? Is the redevelopment happening in stages? All of these aspects of the redevelopment project will necessitate customization of the evaluation design.

The information you provide below will enable your evaluation expert to customize the evaluation design to the unique needs of your redevelopment project.

I. REDEVELOPMENT PROJECT:

1. Information about the redevelopment project. Check all that apply:

○ Brand new facility

○ Existing facility renovation

○ Full facility renovation OR sections/rooms/select spaces

○ Old facility to be replaced by a new one

a.) If the old facility is being replaced by a new one, is there an existing facility in which data can be collected prior to the move to a new facility on the same site?
○ Yes ○ No

b.) Is the new facility (same type) being built on a different site?
○ Yes ○ No

○ New care delivery/service altogether within an existing or new redevelopment project? For example, a new cancer unit that previously didn't exist at the facility

○ Other

II. COMPARISON FACILITIES:

Although it may not always be appropriate or possible, including an additional comparison facility to act as a control site offers numerous advantages. The most important of which is to provide a baseline that better attributes any observed outcomes to the design, rather than external societal factors.

The following factors will help you assess the compatibility of your healthcare facility with potential control sites. A suitable comparison facility will present itself when many of the following attributes are matched with your healthcare facility's characteristics.

- ✓ Same or similar patient population
- ✓ Same or similar staff size and mix
- ✓ Comparability of spaces size, scope and intended use
- ✓ Location – urban, suburban, rural, remote
- ✓ Environmental surroundings – parks and green space, city scape, proximity to water, neighbourhoods and community

1. Is there a suitable comparison facility (or more than one)? ○ Yes ○ No

If *yes,* what is/are the name(s):

2. What are the similarities (in the features noted above, as well as design) between this facility and your facility?

3. What are the differences (in the features noted above as well as design) between this facility and your facility?

METHODOLOGY DOs AND DON'Ts

DO

- use **pretest posttest quasi-experimental research** to infer causality between design and outcomes
- use **quantitative and qualitative methods** to capture user experience
- include a **comparison facility**
- select a comparison facility that is **compatible** with users and design intentions
- work with an expert to develop **custom measures** unique to your redevelopment project

DON'T

- **sacrifice** research rigour for speed of data collection
- let **bias or vested interest** influence outcomes. The POE needs to be conducted by an independent party
- **limit your POE** to measuring established healthcare metrics. Let theory, design intentions, and users guide the selection of outcomes
- **underestimate** the value of relationship building and user engagement in the collection of data during the POE

III. EVALUATION METHODS:

The research questions dictate the methods to be considered. For most POEs, the evaluator will draw on a mix of quantitative and qualitative methods.

QUANTITATIVE METHODS

- determine cause and effect relationship between the building design and outcomes
- enhance the ability to anticipate the same findings at other healthcare redevelopment projects

Examples: electronic and paper surveys, numerical scale rating questionnaires, database extraction

Sample size requirements: large

QUALITATIVE METHODS

- no casual inference
- contextualize, describe phenomena under study
- capture the lived experience

Examples: naturalistic observation, semi structured interviews, go along interviews and focus groups

Sample size requirements: small

1. To determine the most suitable research design and methods for your redevelopment project, your expert evaluator will require the following information:

	YES	NO
Is there sufficient time to collect data in the current facility? (one year prior to the redevelopment)	●	●
Do you anticipate the ability to recruit a large number of participants for quantitative surveys (60-100 at each testing period)?		
Patients	●	●
Staff	●	●
Visitors	●	●
Is it reasonable to expect that one hour can be allocated to participate in the POE?		
Patients	●	●
Staff	●	●
Visitors	●	●
Does the healthcare facility's communications team have the capacity to send an email link to the survey to all staff?	●	●
Does the healthcare facility have WiFi coverage throughout?	●	●
Does the healthcare facility have computer stations and/or an internet café?	●	●

Your expert evaluator will develop the data collection materials to be used to execute the POE. However, you will need to keep the following activities in mind and embed them into your project planning (operational planning and redevelopment timing).

Interviewing a patient. Photo by: William Suarez.

I. RESEARCH ETHICS:

As the POE will involve the collection of personal and sensitive materials from patients, all procedures will need to be reviewed prior to execution by the governing body for approval of ethical research. This will ensure all patients and their data are treated in accordance with ethical standards in conducting research.

Please allow time for this approval process and any potential revisions that may be required.

1. Does your healthcare facility have a Research Ethics Board?
   ○ Yes ○ No If *yes,* list them here:

2. Who is responsible?

II. PROJECT LIAISON/MANAGER:

In order to facilitate the execution of the POE the evaluation team will require a point of contact to act as a liaison between their team and members of the healthcare facility. This may include a member of redevelopment as well as a lead from the clinical team to assist in coordinating clinical staff.

1. Do you have a project liaison/manager on site? ○ Yes ○ No
   If *yes,* list them here

2. Who is responsible?

III. PATIENT PARTICIPATION:

One of the most challenging issues with executing a POE is patient recruitment. This is because the policies surrounding approaching patients by non members of the healthcare facility differ across sites. The evaluation team will need assistance in identifying potential patient participants and then accessing them when it is time to collect data. Key facilitators would be healthcare facility staff, such as patient care managers, therapists and multilingual volunteers.

1. Who is responsible?

IV. STAFF ENGAGEMENT:

Input and participation from staff is equally important to the overall implementation of your POE plan. It is recommended that someone from the healthcare facility leadership be tasked with the responsibility of having staff commit to the project and keeping them motivated and engaged throughout the entire process. Participation can be incentivized and resources must be made available for staff to participate.

1. Who is responsible?

A communications strategy is needed to help your redevelopment team communicate effectively and meet the core objectives that pertain to the successful completion of the POE. You will have a variety of audiences that you will need to communicate to and the message and the way it is delivered will vary depending on the audience.

Nevertheless, your communications strategy will need to effectively engage with stakeholders, ensure that people understand what is expected from them and wherever possible change behaviour and routine.

It is recommended that you complete this chapter in tandem with a member of the healthcare facility's communications department.

INTERNAL COMMUNICATIONS

In order to drive awareness and participation, you will need to maximize all of the internal communications platforms that are available. Please be mindful that not all staff members require a computer to complete their responsibilities. Therefore, your internal communications efforts should be a combination of electronic and traditional messaging techniques.

DO YOU HAVE:	YES	NO
A daily email sent out from your communications team	●	●
A regularly scheduled electronic newsletter If *yes,* how often	●	●
A portal or intranet accessible only to staff	●	●
Available space on the website to promote participation	●	●
An ability to push content on staff desktops	●	●
An ability to send text messages to your staff	●	●
Any digital signage in the healthcare facility	●	●
An internal instant messenger program	●	●
A Twitter account for the healthcare facility	●	●
An exclusive Facebook page for staff only	●	●
Other	●	●
Other	●	●

1. Please list all of the high traffic areas where you can strategically place posters and related materials.

2. Please list the locations of all of the bulletin boards in the healthcare facility.

EXTERNAL COMMUNICATIONS

If community usage plays an important part in the healthcare facility's design intentions, you will need to find ways to engage this user group.

ACTION	Is this applicable? YES	NO	DATE OF FIRST COMMUNICATION	FREQUENCY OF ACTIVITY
Facebook Posts				
Tweets				
Town Hall/ Community Meetings				
Sponsoring or participating in community festivals				
Flyering the neighbourhood				
Tours of the site				
Ads in local paper				
Other				

KNOWLEDGE TRANSLATION

Although it is now hard to imagine, there will come a time when you will have completed the POE. You will have a significant amount of information and a series of key findings that will need to be shared with a variety of audiences. A redevelopment project has a multitude of stakeholders and each of them will have a particular set of interests and questions they want answered.

It will be your task to distil what information is most valuable to what audience. Your evaluation team should include a knowledge translation specialist who will be responsible with communicating the relevant findings to the appropriate audiences.

1. Please select from the following list the audiences that you would like your knowledge translation specialist to address.

- ○ Academic Institutions
- ○ Architects
- ○ Clinical Staff
- ○ Community Partners
- ○ Functional Programmers
- ○ Government
- ○ Healthcare Organizations
- ○ Hospital Foundation
- ○ Hospital Leadership
- ○ Industry Journals
- ○ Private Sector Financiers
- ○ Regulatory Agencies
- ○ Other

Once completed the POE will identify spaces and design elements that are performing as expected and achieving their design intentions. However, the POE findings may also contain a series of unexpected results that can include both positive and negative outcomes.

An unexpected positive outcome is when the user is doing something in a space that wasn't anticipated. For example, finding a location in the healthcare facility where they have improvised by using ramps and stairs to extend their rehabilitation session or socializing in the seating areas located by the entrances, a space that wasn't originally intended to be a space for socialization.

An unexpected negative outcome is when the user is not active in a space that was anticipating higher volumes of activity. For example, not frequenting the patient lounges or visiting an outdoor space.

The unexpected positive outcomes can be examined and attempts can be made to replicate this experience to other areas in the healthcare facility. But, it is the negative outcomes or the underperforming areas that will require the most amount of attention.

To help find solutions to underperforming areas, your evaluation team should present a range of cost effective recommendations that could remedy and boost the performance of these deficient areas or design elements. Finding time and the appropriate personnel to implement these recommendations can be challenging.

This chapter focuses on how your healthcare facility can implement the findings of the POE and improve underperforming areas.

Design drawings. Photo by: Maris Mezulis

1. What committees and committee members do you currently have working on the redevelopment project?

2. From the above list, identify the appropriate individuals that could be part of a POE implementation committee.

IMPLEMENTING POE FINDINGS

3. Who from your list created in question 2 can triage the recommendations and distribute them to the bodies, committees or departments that are most affected by the recommendations of the POE?

4. Please list any relevant meetings that occur on a regular basis, either weekly or month, that could benefit from establishing an agenda item expressly devoted to the implementation of the POE findings.

5. How best would the recommendations be distributed given the nature of the meeting and the intended audience members? (select all that may apply)

- ○ Reports
- ○ Powerpoint
- ○ Workshops
- ○ Demonstrations
- ○ Other

Congratulations, you have reached the end of the planning guide and have laid the building blocks for a successful post occupancy evaluation. Now that this stage in the process is complete you need to consider what comes next.

SELECTING YOUR EVALUATION TEAM

Your next task will be to assess the qualities and skills of the evaluation team that you feel will do the best job in creating the POE framework and then executing the POE. For consistency purposes and familiarity with the redevelopment project, it is recommended that the same evaluation team be used to create the POE framework and execute the POE.

These are some of the qualities that you want to consider when selecting your evaluation team:

METHODOLOGICAL EXPERTISE	The ability to produce procedures and practices that are designed to extract valuable data from evaluation participants.
INFERENTIAL DATA ANALYSIS CAPABILITIES	The ability to reach conclusions that extend beyond the immediate data, for example being able to deduce what your subjects may be thinking or feeling.
FAMILIARITY WITH REDEVELOPMENT PROJECTS	An understanding of the inner workings of a healthcare redevelopment project.
RELATIONSHIP MANAGEMENT SKILLS	Due to the many internal and external stakeholders that are involved in the project superior personal and relationship management skills are required.
EXPERIENCE	The proven capacity in both human resources and knowledge to successfully undertake such a challenging project.

Adjacencies — The areas that are proximal to the space under study. Observing and documenting the context of its use, activity and animation.

Anticipated Outcomes — The expected results on how users are responding to the built environment. They can be physical or mental health, well-being, program or process related results.

Architectural Design — A concept that focuses on the components or elements of a structure or system and unifies them into a coherent and functional whole system.

Bias — Prejudice in favour of or against a particular thing, person, or group compared with another, usually in a way considered to be unfair. For example, reporting only positive results from the post occupancy evaluation.

Breaking Ground — The initial excavation work, indicating the start of construction.

Cause and Effect Relationship — A relationship in which one event (the cause) makes another event happen (the effect). One cause can have several effects.

Community — Users identified as not being patients, staff or visitors. In particular, they are individuals who live in the neighbourhoods surrounding the healthcare facility.

Comparison Facility or Control Site — A compatible healthcare facility, serving a similar patient population and located in a similar context, that is not undergoing a redevelopment but is included in the evaluation to account for seasonality or any industry related changes.

Construction — The building and/or completing of the structure and supporting elements of an HCF.

Construction Administration and Review Process — The oversight of the contract for construction. Responsibilities include reviewing and certifying the amount due to the contractor, preparing change orders, and conducting site inspections to determine dates of substantial completion and final completion.

Context of Care — Is the core essence of why the healthcare facility exists. It answers the question of who are the patients that seek treatment at your facility and how do you care for them.

Contract Administration — The duties and responsibilities of the architect during the construction phase.

Contract Documents — Those documents that comprise a contract. In a construction contract, the owner-contractor agreement, conditions of the contract (general, supplementary, and other conditions), plans and/or drawings, specifications, all addenda, modifications, and changes thereto, together with any other items stipulated as being specifically included.

Custom Measures — Measurement scales that are crafted in collaboration with the evaluator and are unique to your redevelopment project.

Data Collection Materials — Items used to extract information from participants, for example, surveys and questionnaires.

Design — The architectural concept of a building as represented by plans, elevations, renderings, and other drawings. It can also refer to the execution of the plan.

Design Development — The second phase of the architect's basic services. In this phase the architect prepares (from the approved schematic design studies, for approval by the owner) the design development documents consisting of drawings and other documents to fix and describe the size and character of the entire project as to structural, mechanical and electrical systems, materials and such other essentials as may be appropriate; the architect also submits to the owner a further statement of probable construction cost.

Design Elements — Key features that enable the realization of the design intentions.

Design Intentions — An explanation of what the design of the built environment is intended to achieve.

Detailed Design
1. A minor section of an architectural design or concept.
2. A drawing, at a larger scale, of a part of another drawing, indicating in detail the design, location, composition, and correlation of the elements and materials shown.

Empirical Evidence — Information acquired by observation or scientific inquiry.

Evaluation — The act of assessing or conducting a study to determine the value of a program, project, or intervention.

Evaluation Design — The framework or overall structure of the post occupancy evaluation that is customized to the unique needs of your redevelopment project. For example, if you are constructing a new facility where none previously existed, a posttest only design might be most suitable.

Evaluation Methods — The techniques, practices and procedures used to assess the value of a subject under observation.

Evaluators — The research scientists that have been given the responsibility of conducting the post occupancy evaluation.

External Communications — The transmission of information to an audience that is located and operates outside of the healthcare facility's physical environment.

Final Landscaping — When all living plants, such as flowers, grass, ground cover, shrubs, trees, and vines, as well as natural features such as rocks and stones; and/or reflecting pools, fountains, outdoor artwork, gazebos, screen walls, benches or fences are in place.

Fit Test — A rough layout of a space to make sure it meets the potential client's needs. A test fit will not only determine if the space is adequate for the proposed use, it will also point out what building modifications may be necessary.

Focus Groups — A qualitative research technique that involves a small group of people (6-10) that share a common set of characteristics (demographics, attitudes, etc.) and participate in a discussion of predetermined topics led by a moderator.

Full Completion — The point at which the entire redevelopment project is complete (including final landscaping).

Functional Program — A planning document that defines the desired outcome for a building project, informing both operating and capital cost estimates and providing the functional and spatial specifications that provide the primary guide for the subsequent architectural design of a building.

Notes:

1. The functional program generally follows the development of an organization's strategic plan, role statement, or the identification of a discrete project from a master plan and typically includes program parameters, general planning criteria, and specific planning criteria for each functional component comprising a facility or specific project.
2. Functional program is also referred to as "facilities program" or "design brief".

Go Along Interview — A research method whereby an evaluator emulates the patient experience by following and interviewing them as they experience various spaces in the healthcare facility.

Health Care Facility (HCF) — A set of physical infrastructure elements supporting the delivery of health-related services.

Health Outcomes — Are a change in the health status of an individual, group or population which is attributable to a planned intervention or series of interventions, regardless of whether such an intervention was intended to change health status.

Healthcare Facility — A location that provides health services, for example a hospital, clinic, outpatient centre, mental health facility or rehabilitation centre.

Healthcare Facility Database Outcome Measures — Traditional metrics and data points measured by the healthcare facility that can include slips and falls, code yellows, infection and discharge rates.

Internal Communications — The transmission of information to an audience that is located and operates within the healthcare facility.

Interviews — A method of data collection, information or opinion gathering that specifically involves asking a series of questions.

Knowledge Translation — The transmission of information originally harvested by the evaluation team but represented in a format that is more readily understood by different audiences and stakeholder groups.

Lived Experience — First-hand accounts and impressions of a user's (patient, staff, visitor or a member of the community) situation in the context under study.

Master Plan — A document (or set of documents) that states how the HCF intends to move from its current state to a desired future state as outlined in its strategic plan.

Notes:

1. The master plan usually includes:
   (a) an assessment of the existing conditions;
   (b) a master program, which is a high-level projection of future space needs (within a stated time horizon);
   (c) the exploration of significant planning issues and design concepts;
   (d) the documentation of a preferred plan among alternatives, often to be implemented in phases.

   A master plan is not a single-issue response, but should address all current planning issues for the organization. A master plan is often conducted at the level of schematic designs.
2. A master site plan, an outcome of the master plan, shows an entire property, the location of each building, and the future phases of development included in the plan.

Master Program — A document (or set of documents) that translates the stated project parameters (including key functional, physical, operational and financial parameters) into preliminary high level physical accommodation and operational requirements.

Mobility — The status of one's ability to move freely or with ease. For example, walking, walking with an assistive device such as a cane, crutches or walker, using a wheelchair or electric scooter.

Naturalistic Observation — A research method that involves observing people in a natural setting without their awareness.

New Construction — Construction to produce all or part of an HCF that did not exist prior to the project.

Occupancy — The use, or intended use, of a building.

Opening Day/ Move in Day — The first official day in which the building is occupied and operational.

Outcomes — Something that happens as a result of an intervention, activity or process.

Overarching Design Intentions — An explanation of what the overall design of the healthcare facility is intended to achieve.

Patient Recruitment — The process providing information to patients so they can make an informed decision about whether or not to participate in the post occupancy evaluation.

Planning Guide for Post Occupancy Evaluation — A resource available to redevelopment teams that will lead them through a series of exercises designed to gather relevant information necessary for the evaluators to understand the redevelopment project and create a post occupancy evaluation framework.

Post Construction — Activities that occur after the redevelopment project has been concluded.

Post Occupancy Evaluation (POE) — The systematic evaluation of newly constructed buildings after they have been occupied for at least one year with the goal of identifying whether or not the design intentions have been achieved. POE may be executed on a completely new building, a renovated building, or an addition to an existing building.

Post Occupancy Evaluation (POE) Framework — A document that outlines the appropriate research design, proposed methodology and outcomes to be assessed in a post occupancy evaluation.

Preconstruction — Activities that occur prior to the commencement of the redevelopment project.

Pretest Posttest Quasi Experiment — A research or evaluation design where data is collected across two phases: pretest (before redevelopment - former facility) and posttest (after redevelopment - new facility), without randomly assigning participants to either phase.

Project Liaison/ Manager — The individual assigned to act as the link between the evaluation team and members of the healthcare facility's redevelopment team.

Qualitative Methods — Research techniques that are geared towards better understanding the context and the user experience (naturalistic observation, interviews, focus groups).

Quantitative Methods — Research techniques based on empirical, formal, objective and systematic processes wherein numerical data are collected (surveys) and statistical analyses are applied to describe, examine relationships and determine cause and effect between phenomena under study.

Redevelopment Project — The construction of a new healthcare facility or the renovation or addition to an existing facility.

Renovation — Construction to modify or upgrade an existing HCF to be used for similar purposes.

Research Ethics — A fundamental set of guiding principles that are applied when conducting research to ensure that all participants and their data are treated in accordance with humane standards. A necessary step prior to conducting a POE is to obtain approval from the relevant institutional research ethics board.

Sample Size — The number of participants required to participate in the POE.

Schematic Design — The first phase of the architect's basic services. In this phase, the architect consults with the owner to ascertain the requirements of the project and prepares schematic design studies consisting of drawings and other documents illustrating the scale and relationship of the project components for approval by the owner. The architect also submits to the owner a statement of probable construction cost.

Staff Engagement — The ability to motivate and ensure participation in the post occupancy evaluation from individuals who are employed at the healthcare facility.

Substantial Completion — When all or a designated portion of a building complies with the provisions of applicable statutes and regulations, and permitting occupancy for its designated use.

Tender — A proposal or bid for a contract to perform work, often on a form, completed by a contractor, giving estimated price and time to complete a contract.

The Design/ Project Implementation Process — The conventional phases of the design process as defined by in owner/ architect contracts.

The POE Implementation Process — The phases of the POE process including the selection of an external evaluator, the development of a POE framework, the development of data collection materials, the coordination and execution of data collection, data analysis, and final reporting.

User — It is the individual that is in the space being evaluated. A user can be a patient, staff, visitor or a member of the community.

User Experience — An account of what the individual (patient, staff, visitor or a member of the community) is doing and or feeling when occupying or using a space under evaluation.

Vested Interest — A personal, professional or political stake in the results of the POE, especially when there is an expectation of financial gain or professional acclaim.

Working Documents — Drawings, intended for use by a contractor, subcontractor, or fabricator, which form part of the contract documents for a building project; contain the necessary information to manufacture or erect an object or structure.

The authors wish to thank the following participants of a workshop that we held with the Canadian Standards Association on August 17, 2015. The objectives of the workshop were to pilot test an early draft of the Planning Guide for Post Occupancy Evaluation and obtain feedback and input from the intended users to ensure relevance.

Jeffrey Kraegel, *CSA Group*

Nancy Bestic, *CSA Group*

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Laura Shea, *Manitoba Health*

This document "A planning guide for post occupancy evaluation" was made possible by the generous support of the Canadian Institutes of Health Research (CIHR) Partnerships for Health System Improvement (PHSI) grant via the Strategy for Patient-Oriented Research and the Rx&D Health Research Foundation (Fostering Innovation in Healthcare Initiative) with partnered funding from the Health Capital Investment Branch of the Ontario Ministry of Health and Long Term Care.

This is the final output of a project led by Dr. Celeste Alvaro titled *Assessing the Impact of Healthcare Facility Design on Health Outcomes: Implications for Strategic Investments in Design.* Over the course of this project there have been many partners, researchers, collaborators and supporters. Their contributions were noteworthy and very much appreciated.

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Special thanks are extended to the research assistants and trainees involved in various phases of data collection and analysis, including:

Ryan Alexander, Margot du Man, Genedith Estrada, Linda Eum, Martha Harvey, Sylvia Hoang, Oksana Kachur, John Kim, Emmanuel Loloy, Cassandra Mackey, Navin Malik, Ashley Martins, Jason Nie, Maya Nikoloski, Sandra Oziel, Carolyn Steele-Gray, Rachel Thombs, Roy Tobias, Shawn Tracy, Jenini Subaskaran, Carolyn Van Lier, and Ashley Ward.

Appreciation is extended to the patients, staff, and leadership at Bridgepoint Active Healthcare; Sheila Furness, Bridgepoint Collaboratory for Research and Innovation; the Communications and Public Affairs team, Bridgepoint Active Healthcare; Cris Gresser, Clinical Specialist, Health Capital Investment Branch, Ontario Ministry of Health and Long Term Care; Ian Sinclair, VP Operations, and the redevelopment team, Bridgepoint Active Healthcare; our collaborators at West Park Healthcare Centre; and Nene Brode in the Department of Architectural Science, Ryerson University.

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