



PURPOSE BUILT

TOOLKIT 1.0

Charting Capital Results

A guide to evaluating impact

Purpose Built

Capital projects often bring lasting benefits to nonprofit organizations and the people they serve. Given this opportunity, foundations grant more than \$3 billion annually to construct or improve buildings in the United States alone.¹ Each capital project affects an organization's ability to achieve its mission—signaling its values, shaping interaction with its constituents, influencing its work processes and culture, and creating new financial realities. While many projects succeed in fulfilling their purpose, others fall short of their potential. In most instances, organizations fail to capture and share lessons learned that can improve practice.

To help funders and their nonprofit partners make the most of capital projects, The Atlantic Philanthropies and the S. D. Bechtel, Jr. Foundation commissioned *Purpose Built*—a multi-faceted study by MASS Design Group, a nonprofit architecture and research firm. In 2015 and 2016, MASS conducted interviews, reviewed literature, and examined a diverse set of completed projects around the world; each project was supported by one of the above funders.

The
ATLANTIC
Philanthropies

S. D. BECHTEL, JR.
FOUNDATION
STEPHEN BECHTEL FUND

MASS.

¹ Foundation Center, *Foundation Maps* data based on grants made in the United States, 2006-2015.

Purpose Built Series

The study generated a set of core principles as well as tools for those considering or conducting capital projects. See the full *Purpose Built* series online at www.massdesigngroup.org/purposebuilt.



Introducing the Purpose Built Series is an overview of the study and its core principles.



Making Capital Projects Work more fully describes the *Purpose Built* principles, illustrating each with examples.



Planning for Impact is a practical, comprehensive tool for those initiating capital projects.



Charting Capital Results is a step-by-step guide for those evaluating completed projects.



Purpose Built Case Studies report on 15 projects to illustrate a range of intents, approaches, and outcomes.

Charting Capital Results

Buildings are living systems that respond to changing external forces, internal programs, and user needs. The impact of a capital project therefore cannot be determined at any single time, such as the first day, month, or year following its completion. The evaluation of capital projects should consider a multiplicity of stakeholders and an ever-changing context. It is essential to measure the right criteria: Rather than settling for the easiest to track metrics, assessments should consider if and how the project has achieved its mission. An holistic review of both outcomes and design is necessary to form a complete picture of positive and negative consequences on operations, users, and organizational dynamics related to a new facility. This assessment can in turn surface needed actions and improvements as well as capture important lessons for the future.

Charting Capital Results is a tool that guides funders and nonprofits through a systematic assessment of a completed capital project, helping organizations think through both the “how” and “why” of evaluation. The process is designed to facilitate an on-site engagement, assisting organizations in identifying the right stakeholders to involve, articulating the correct metrics for evaluation, considering both short- and long-term impacts, and understanding key steps and decisions that have influenced project outcomes. Information gathered during these on-site engagements will aid organizations to better understand and articulate the impact of the capital project, the successes and challenges it has had in achieving its intended impact, and to share those lessons with the field.


Contents

CHARTING CAPITAL RESULTS.....	06
APPENDIX.....	11
Outcomes-Based Design.....	12
Field Immersion Methodology	18
Metrics Database	22

CHARTING CAPITAL RESULTS


1. SCOPE AND PLAN

This body of work will help organizations develop an understanding of what they want to evaluate, how they will gather, analyze, and disseminate data, how much time it will take, and what the budget will be.

- Identify goals of evaluation
- Identify unit of analysis
- Conduct a focus group 
- Develop research questions
- Identify key stakeholders

2. GATHER

After scoping and planning the desired evaluation, researchers will be able to conduct both primary and secondary data collection. In this body of work, off-site research will be supported and verified by a one to three week on-site engagement.

- Conduct literature review
- Engage key stakeholders 
- Complete spatial analysis (resources for architects and designers forthcoming)

3. ANALYZE

As information is collected, evaluators should properly store, organize, and assess the data. During the process, be sure to record and document activities conducted and decisions made with care.

- Store and organize data
- Analyze data
- Validate findings

4. DISSEMINATE

In the fourth stage of evaluation, organizations will enact their vision for the case study report as decided upon in the 1. Scope and Plan section.

- Share findings

Key Activities & Deliverables

Case Study Report

Case Study Report

The goal of a *case study report* is to synthesize and analyze information gathered during the evaluation process so that it can be shared internally and externally. While case studies will be project-specific, each should consider key decision making steps and the project's associated outcomes—both positive and negative. Consider whether or not adequate time has passed to be able to discern long-term impacts, but be sure to balance the timetable so that lessons learned can be used to inform future projects.

1. SCOPE AND PLAN

□ Identify goals of evaluation

Before beginning a capital project impact evaluation, organizational leaders should consider how they might benefit from an evaluation. Evaluations can serve a variety of purposes: they can be used internally or externally, to make changes and recalibrate, to capture and communicate value, or to make a case for additional investment. Developing a clear and shared set of goals will help organizations make decisions regarding the rigor of the evaluation and identify the appropriate party to conduct the evaluation.

Questions to Consider

- Who is the audience? What reporting format is most appropriate?
- What is the right timeframe for an evaluation?

Resources

- Booth, W. C., Colomb, G. G., & Williams, J. M. *The Craft of Research*. Chicago, IL: University of Chicago Press. 2003.

□ Identify evaluation team

Sometimes an in-house evaluator will be able to carry out the task, but sometimes a third-party evaluator will be necessary to provide appropriate accountability or to fill gaps in capacity and expertise. Because this tool provides the frameworks and processes to conduct a primarily qualitative case study evaluation,

organizations should consider additional consultants or evaluative expertise if their evaluation goals are more extensive.

Questions to Consider

- Do we have the capacity or expertise?
- Should we conduct the evaluation in- or out-of-house?

Resources

- Yin, R. "Chapter 8: How to Do Better Case Studies." *The SAGE Handbook of Applied Social Research Methods*. Woburn, MA: Sage Publications Inc. 2009.

□ Identify unit of analysis

Depending on the project, an evaluation might assess a variety of different units. The simplest evaluation will consider a single building. In some cases, organizations might be interested in evaluating projects of a different scope, such as: an installation, a single room, a series of buildings, a park, a campus, a neighborhood, a city, or a system of projects. Organizations might consider evaluating multiple cases in order to diversify lessons learned or create additional opportunities to generalize findings. As part of the scoping process, the evaluation team will identify the unit that is most appropriate and useful to analyze.

Questions to Consider

- What is the scale of our intervention?
- Are there comparable projects?

Resources

- Baxter, Pamela & Jack, Susan. "Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers." *The Qualitative Report*, 13:4 (December 2008), p. 544-559.

❑ Conduct a focus group

Conducting a focus group can provide valuable insight into the range of impact that a project has had. Sometimes referred to as a kick-off meeting, the focus group can help evaluators uncover unexpected categories of impacts and identify what to look for during a more extended engagement. While the evaluation team should consider a variety of stakeholders from whom to solicit a broad range of opinions, an initial meeting will likely involve two to five individuals who are most knowledgeable about the project. The goal of this focus group is to emerge with a hypothesis regarding which impact and processes to consider in more depth during the full case study evaluation.

Questions to Consider

- Who can help us understand the broad range of impact that the project has had?
- Who can help identify additional stakeholders for potential future engagements?

Resources

- *Field Immersion Methodology* (p. 18) 


❑ Develop research questions

Based on the information gathered in the focus group, as well as any available secondary data about the project, evaluators will develop the primary research questions to evaluate. The questions can be centered on a specific impact, user, or process. The best research questions will help evaluators appropriately scope engagement and activities to the most salient and informative points. The *Outcomes-Based Design* methodology will help evaluators think through the variety of potential topics to research.

Questions to Consider

- What do we hope to learn from the evaluation?
- What are the key metrics that we will consider?
- Is now the right time to evaluate the identified topics?

Resources

- Glennerster, Rachel & Takavarasha, Kudzai. "Chapter 3: Asking the Right Questions." *Running Randomized Evaluations*, p. 66-97. Princeton, NJ: Princeton University Press. 2013.
- *Outcomes-Based Design* (p. 12) 

❑ Identify key stakeholders

Various individuals, groups, and communities will be impacted by any given project. Evaluators should identify a broad range of stakeholders and

experts to engage and then refine the list to key stakeholders. Consider core individuals from inside the organization (e.g., teachers, nurses, executive and administrative staff, facility managers), additional end users (e.g., students, patients, family members), members of the external project team, community members who may be affected by the project, and thought leaders working in the same field. Potential respondents will be identified in the initial focus group and developed in continued discussions.

Questions to Consider

- What stakeholders have been affected by this project?
- Who has in-depth knowledge regarding implementation specifics?
- Who is available to participate within the study's given timeframe?
- What level of anonymity can we provide?

2. GATHER

❑ Conduct literature review

Some data providing insight into the identified research questions may already exist. Finding this information will help narrow the focus of the evaluation, avoid duplicate work, and identify gaps where additional data collection is necessary. For third-party evaluators, the organization in question will be a good resource and can provide existing studies or articles. Annual reports and funder updates can be a source of high-level information that has already been prepared. Organizations

may have already completed this step in their project planning phases, prior to the construction of the project, so be sure to seek out this information and not duplicate work—this literature review should be more targeted because the project has already identified specific goals.

Questions to Consider

- What data already exists about our research questions?
- What does the data tell us? Where are there gaps?

❑ **Engage key stakeholders**

Interviews and workshops with key stakeholders will form the core of the on-site engagement and data gathering process. Having identified a list of participants in the *1. Scope and Plan* step, the evaluation team should move forward with conducting stakeholder engagement activities and collecting data. Evaluators should be advised that it will take time to coordinate participant outreach, scheduling, and meeting logistics, in addition to developing the necessary data collection templates (e.g., worksheets or surveys).

The evaluation team should familiarize themselves with as much background knowledge as possible, and be prepared to facilitate conversations with a wide range of stakeholders. Evaluators should be sensitive to participants' backgrounds and circumstances when selecting meeting locations and times, and take them into

account when developing the questions or exercises that will structure the in-person engagement.

Involving more than one evaluator in meetings and workshops is ideal. Two or more evaluators allows for higher quality conversations and an opportunity to verify recorded information. Although each stakeholder engagement will be slightly different in nature, it is important to document data and feedback across engagements systematically. Early on, establish a method for keeping track of insights and findings so that these can be easily synthesized later on.

Questions to Consider

- How is the project perceived by different stakeholders?
- What unique perspectives and possible biases are stakeholders bringing?

Resources

- *Field Immersion Methodology* (p. 18) 📄

❑ **Complete spatial analysis**

Consider partnering with design professionals to conduct a more in-depth analysis of how the built environment is performing. Architects and designers bring unique skill sets and perspectives required to evaluate technical performance criteria and visualize project impact across a range of scales. By leveraging a variety of tools (such as field observations, mapping, and workshops), they can help show how design interventions affect activities and

user interactions within spaces, as well as across neighborhoods or communities.

Favor design partners that have either an in-depth knowledge of the local area or experience conducting in-depth engagements with building users and communities.

Questions to Consider

- How is the design performing?
- Is the design enabling the activities, interactions, and dynamics intended?
- Does the design ultimately reflect and enable the organization's mission?
- Are there any issues that need to be addressed?

Resources

- Jacobs, A. *Looking at Cities*. Cambridge, MA: Harvard University Press. 1985.
- *Additional resources for architects and designers forthcoming.*

3. ANALYZE

❑ **Store, process, and organize data**

The organization should ensure that the data collected from participants is stored securely in multiple locations. If the organization chooses to keep participants anonymous, data should be stored as such, with files and their contents de-identified. Some teams may choose to undergo more intensive data processing—such as data entry, transcription, and coding—which will add to the schedule and budget for

the evaluation. Evaluators should work to ensure data integrity and organize responses based on identified themes or responses.

Questions to Consider

- Is our data secure? Are our participants secure?
- What themes or keywords can we begin to identify across interviews?

Resources

- Booth, W. C., Colomb, G. G., & Williams, J. M. "The Ethics of Research." *The Craft of Research*. Chicago, IL: University of Chicago Press, p. 298-288. 2003.
- "Responsibilities for Ethical Research." De Montfort University, Leicester. Accessed February 25, 2016. www.dmu.ac.uk/research/ethics-and-governance/responsibilities-of-the-researcher.aspx.

□ Analyze data

Analyzing data collected during the on-site engagement is a challenging exercise that may look very different depending on the evaluation team and the case. There is an abundance of resources available to aid evaluators in analysis based on specific types of inquiry (see the following set of resources for information regarding theoretical, pattern matching, chronological, or evidence-based assessments); however, organizations should simply remember to use logic when analyzing information, and to test findings and assumptions against multiple perspectives.

Questions to Consider

- What patterns are emerging?
- How are these findings aligned or misaligned with our hypotheses?
- Have we answered our research questions?

Resources

- Creswell, J. W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Woburn, MA: Sage Publications Inc. 2013.
- Baxter, Pamela & Jack, Susan. "Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers." *The Qualitative Report*, 13:4 (December 2008), p. 544-559.

□ Validate findings

Data validation is an important step to ensure that information and findings are accurate and reliable. There are many methods for validating data, such as checking for saturation or convergence (i.e., when many respondents say the same thing and when new information ceases to be generated), triangulating data (i.e., using multiple sources and perspectives to arrive at the same conclusion), or utilizing member checking (i.e., verifying that assumptions and findings are logical and replicable). Data validation will occur at multiple times throughout the evaluation process, and interview data should be recorded for later review. Once the analysis is conducted, conclusions can be validated by participant or peer review.

Questions to Consider

- How have we ensured the validity of our data through the collection process?
- What are the limitations of our data?
- What review process is appropriate for our analysis?

4. DISSEMINATE

□ Share findings

Write the report and share it. The organization should decide on a medium for dissemination based on the intended audience. If the study is intended for the general public, the organization may choose to consider using videos or a website to communicate vignettes or narratives of impact, while a report intended for donors may focus on financial aspects or metric reporting in more technical terms.

Resources

- O'Brien, Bridget, et al. "Standards for Reporting Qualitative Research: A Synthesis of Recommendations." *Academic Medicine*, 89:9 (September 2014).

Questions to Consider

- Did the project achieve its original goals? What unanticipated impact has resulted?
- How can we course correct to respond to what is not working?
- What lessons did we learn from carrying out the project, and what might we have done differently?

PURPOSE BUILT

TOOLKIT 1.0

Charting Capital Results

Appendix

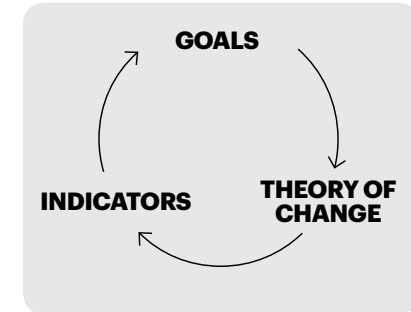
OUTCOMES-BASED DESIGN (OBD)

p. 1 of 6



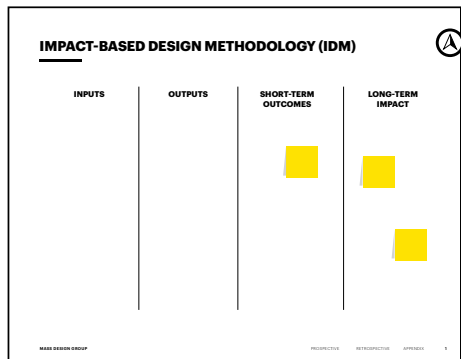
The OBD is an iterative process that helps project teams align design responses with relevant needs. The following pages will help organizations identify project goals (both mission-aligned and 360°), develop a theory of change, and identify indicators and criteria.

The OBD is a non-linear process, and it's okay to go back. In fact, it's designed to provoke a dialogue that results in clarity. When conducting the OBD, use sticky notes or dry-erase boards to help with the iterative process.



MISSION AND GOALS

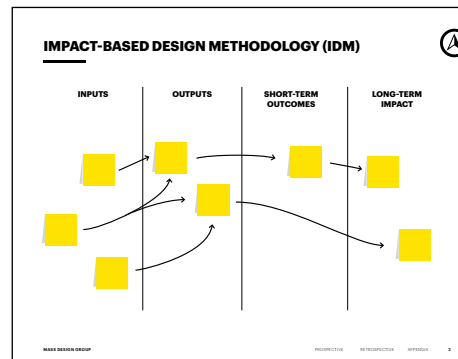
What are our mission and goals?



To begin, organizations will brainstorm goals for the capital project. Consider goals that are aligned with the organization's mission, and look for opportunities to amplify impact that capital projects may have.

THEORY OF CHANGE

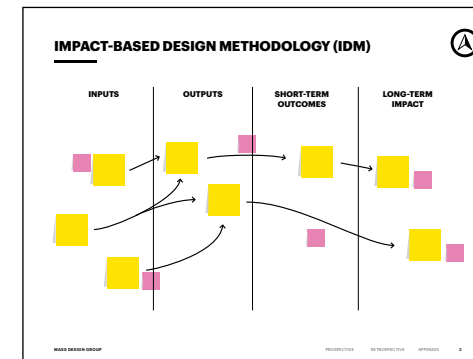
How do we achieve our desired outcomes?



Next, brainstorm how capital projects can lead to impact, and identify the steps necessary to achieve the organization's goals. Think about how the project could have direct impact, as well as how it could change behaviors and mindsets.

INDICATORS AND CRITERIA

How do we evaluate our progress?



Then, identify indicators that will help demonstrate if the project is successful. Consider both outcome indicators and process indicators, paying close attention to any areas where there are risks or uncertainty in the theory of change.

MISSION AND GOALS (OBD) p. 2 of 6



What are our mission and goals?

Buildings aren't just shells for the activities and programs they contain, but play an active role in helping organizations advance their missions, operate more effectively, and build capacity. Beyond this, capital projects can inspire confidence and create broader momentum for change.

Consider the questions below while identifying project goals. Think about how they can align with organizational mission and identified needs in order to amplify positive impact. Finish this step by addressing the broad range of (often unintended and sometimes negative) impact that capital projects ultimately have.

A. Identify mission-aligned impact goals

- What is the organization's mission statement?
- Why is it important?
- What are the end goals?

Reduce infant mortality rates

Increase literacy rates

B. Consider opportunities identified in the needs assessment

- What are the additional needs that stakeholders have articulated?
- Which of these can the project address?
- Which can help amplify the mission?

Build economic capacity

Reduce unemployment among women

C. Use the 360° worksheet to think about additional impact your project may have—both intended and unintended

- What are the opportunities to amplify positive impact?
- Where should we mitigate negative impact?

Minimize energy use onsite

Increase community's access to green space

THEORY OF CHANGE (OBD) p. 3 of 6



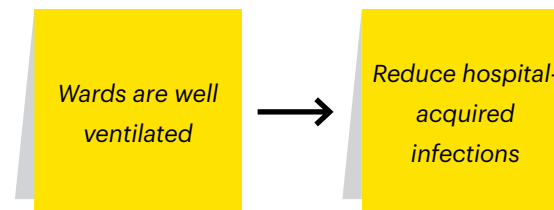
How do we achieve our desired outcomes?

Buildings can lead to impact in a variety of ways. Not only do they affect an organization's ability to directly achieve their mission, but they also can affect behaviors and perceptions.

Brainstorm the steps necessary to achieve the project's goals, and think about how each relates to the next. Note any assumptions and risks in these critical pathways to impact.

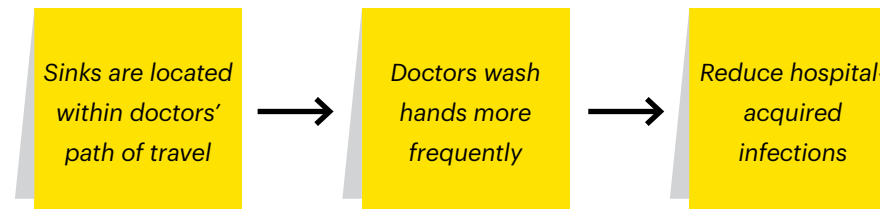
A. Identify opportunities for direct impact

- How will the capital project directly lead to impact?



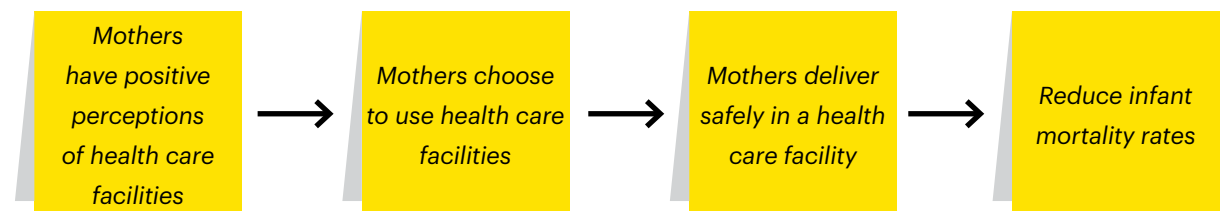
B. Identify opportunities for behavior change

- How does the built environment influence behavior?
- How might changes to behavior lead to our identified goals?



C. Identify opportunities for symbolic impact

- How does design affect the way people think?
- How could changed perceptions or attitudes lead to impact?



INDICATORS AND CRITERIA (OBD) p. 4 of 6



How do we evaluate our progress?

Identifying metrics can help organizations track progress and plan for evaluation efforts, enabling them to improve their work and report back to funders. If things aren't going as expected, indicators at different steps in the theory of change model can help organizations identify where to intervene.

Consider the following types of indicators, and identify which are the most important to follow up on. See the *Metrics Database* sample for examples of health metrics and evaluation strategies.

A. Identify process indicators

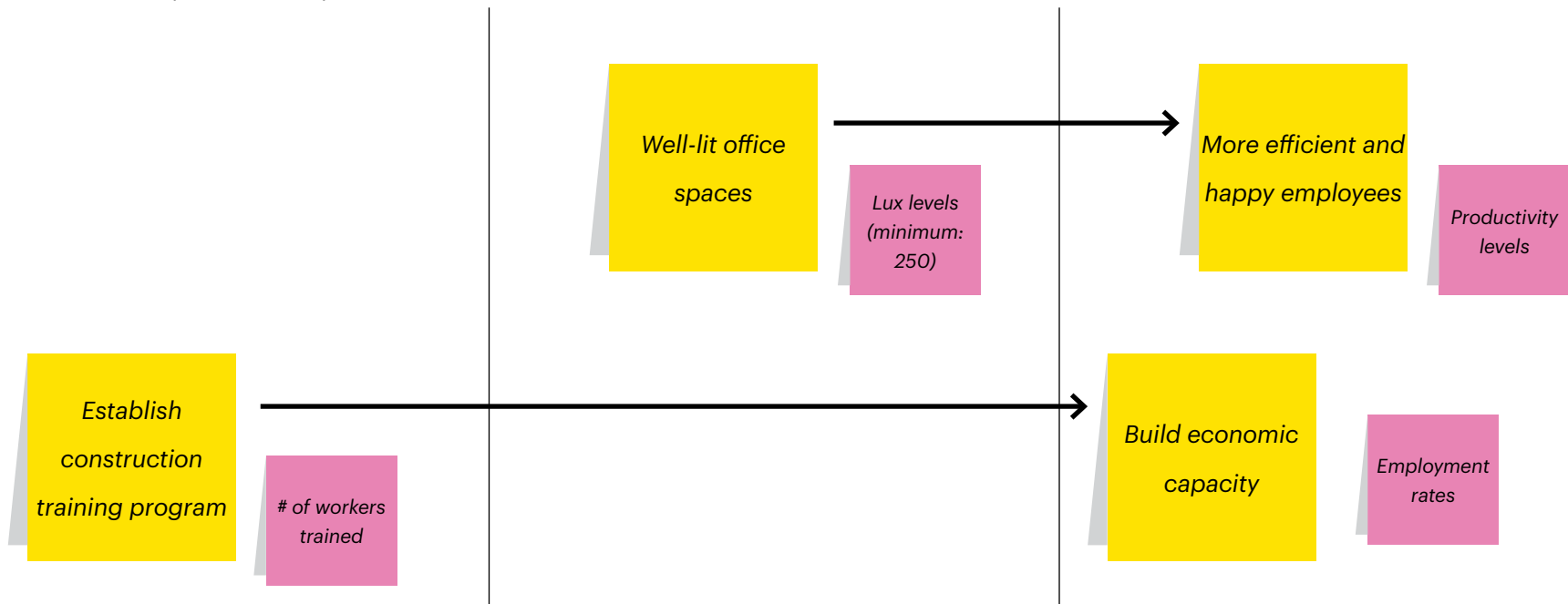
- How will we know if our process is leading to impact?
- What activities should we be completing to ensure that we've planned for impact?

B. Identify design indicators

- What design qualities do we need in order to lead to impact?

C. Identify impact indicators

- What indicators will tell us if we have achieved our goals?
- Are they specific, observable, and measurable?



OUTCOMES-BASED DESIGN WORKSHEET (OBD)

p. 5 of 6



INPUTS

OUTPUTS

**SHORT-TERM
OUTCOMES**

**LONG-TERM
IMPACT**

360° WORKSHEET (OBD)

p. 6 of 6

The **360° worksheet** helps project teams consider a range of potential stakeholders and categories of impact. Not every cell needs to be filled out, but the document should be used as a guide to ask questions that are often unconsidered.



	Environment	Economy	Education	Emotion	Health
End User					
Organization					
Sector					
Community					
Region					



FIELD IMMERSION METHODOLOGY (FIM)

A variety of methods can be used to collect feedback from project stakeholders. Common approaches include focus groups, semi-structured interviews, and structured questionnaires, which are each described in more detail on the following pages.

FOCUS GROUP

Focus groups are facilitated group discussions that can be used to gather feedback from multiple stakeholders simultaneously. Unlike individual interviews, they give participants an opportunity to listen and respond to others' perspectives. Focus groups can be used to gain consensus on project goals, identify complex issues or tradeoffs, and build support and understanding around project needs.

SEMI-STRUCTURED INTERVIEW

Semi-structured interviews are open conversations that are guided by a set of prepared questions. They can be used to engage targeted individuals to gain insight into ideas they have for the project, issues they anticipate, and new opportunities that might arise as a result of the project. Semi-structured interviews are useful in eliciting a range of perspectives, clarifying needs, and defining short- as well as long-term goals.

STRUCTURED QUESTIONNAIRES

Structured questionnaires are form-based surveys that can be distributed to large groups to gather feedback and data on preidentified topics and questions. They can be helpful in providing a sense of the overall priorities and concerns of the group and also be leveraged to make stakeholders feel included in the project.



FOCUS GROUP

Focus groups are facilitated group discussions that can be used to gather feedback from multiple stakeholders at the same time.

OVERVIEW

Focus group discussions are a useful forum for generating feedback and ideas. Unlike individual interviews, they allow a facilitator to gather many points of view quickly and give participants an opportunity to listen and respond to others' perspectives.

More specifically, focus groups can be used to understand general perceptions within a group, identify needs and opportunities, and gain consensus on goals and priorities. Since participants will voice different viewpoints and perceptions, focus groups also help create an open dialogue and build support and understanding between stakeholders.

However, because they occur in a collective setting, focus groups are not useful for gaining a detailed understanding of personal perceptions or collecting private information.

HOW TO

In advance, the facilitation team should identify learning objectives for the activity and prepare a discussion guide that includes primary questions and potential follow-up questions that address the learning objectives.

A lead facilitator should steer the group discussion by posing open-ended questions to elicit feedback and responses from participants. The role of the facilitator is to manage the pace of the conversation and ensure that all participants have the opportunity to make a contribution. He or she does so by working through the thematic questions, prompting participants to clarify what they say, asking others to respond, and keeping the group focused on the topics.

A second team member should be designated as a note taker to record the discussion and document key ideas or takeaways throughout the conversation.

Not everyone may feel comfortable voicing their opinion, especially if it goes against the status quo or conflicts with someone in a greater position of influence. The facilitator's role is to negotiate these dynamics, either by verbally balancing opposing viewpoints in or organizing multiple focus groups to accommodate different stakeholders.

At the conclusion of the session, the facilitator should recap key points and thank participants for their contributions. Notes and takeaways should be synthesized afterward.

TIME

60-90 min

MATERIALS

Pre-prepared questionnaire

Voice recorder

Pens, paper, or sticky notes for participants to record ideas

TIPS

- 01 It's typically best to keep focus groups under 12 people.
- 02 Be aware of social dynamics when determining which individuals should be in a group.
- 03 Create multiple ways for people to participate, so that conversation isn't dominated by the most outspoken personalities.
- 04 Make it easy for people to come by selecting a convenient meeting location and time. In some cases, consider compensating participants for their time.
- 05 Be aware of the different motivations, perspectives, and biases that people bring.
- 06 Make sure to document key points and takeaways throughout the discussion, and back up your notes by tape recording the discussion.



SEMI-STRUCTURED INTERVIEW (FIM)

In semi-structured interviews, prepared questions are used to prompt open-ended discussions with individual respondents.

OVERVIEW

A semi-structured interview typically involves a standard questionnaire that can be used to facilitate conversations with a targeted set of individuals. The team may already have some ideas about important research questions or the nature of an issue or problem, and can query respondents further in order to set a research agenda or gather data for analysis.

Semi-structured interviews are used to collect thematic data, personal perspectives, and anecdotes detailing the characteristics of a situation or experience. They are especially useful for understanding processes, factors that produce a particular condition, and perceptions and beliefs about needs and opportunities.

HOW TO

Interviews need to be slightly tailored to each individual respondent. If a standard questionnaire is being used, the interview team should identify the topics or questions most pertinent to each respondent in advance and make sure to prioritize those during the interview.

To facilitate the discussion, begin by having

the interviewee provide a short synopsis of their role and background, which will help to confirm the topics they are best positioned to address. Throughout the conversation, the interviewer should provide prompting questions, and the interviewee should do most of the talking. It's not necessary to cover questions in any predetermined order; the questionnaire should be considered a guide to make sure that the conversation touches on the range of highlighted topics overall.

If possible, having two people on the interview team is ideal, as it allows for higher quality conversations and more accurately recorded information. One person should be responsible for leading the discussion; and the other should be responsible for taking notes and highlighting important points or anecdotes.

At the conclusion of the discussion, the interviewer should ask if the interviewee has anything else to add or recommendations for other people to interview.

Make sure to synthesize notes promptly after each interview, referring back to the audio recording if quotes or more detailed transcriptions are required.

TIME

45-90 min

MATERIALS

Pre-prepared questionnaire

Voice recorder

Extra paper and pens

TIPS

- 01 Familiarize yourself with interviewees' roles and backgrounds in advance, and prioritize questions appropriately.
- 02 Make sure to ask permission to record the conversation.
- 03 Ask follow-up questions to draw out more detailed information or feedback.
- 04 Don't ask yes or no questions, which are close-ended rather than open-ended (unless a yes or no response is needed).
- 05 If you're unclear about a response, repeat back what you think you heard and ask the interviewee to validate.
- 06 Avoid judging or commenting critically on what interviewees have to say.
- 07 If detailed documentation is needed, make sure to budget for transcription of audio recordings.



STRUCTURED QUESTIONNAIRE (FIM)

Structured questionnaires can be used to survey large groups to gather responses to pre-identified topics and questions.

OVERVIEW

Structured questionnaires are form-based surveys that are distributed to large groups, typically 20 or more. Unlike semi-structured interviews, which provide a loose guide for more open-ended conversations, structured questionnaires prompt respondents to give short or close-ended answers to a standard set of questions.

Responses can be collated and analyzed to gauge preferences and concerns across a population or measure trends related to an issue or problem. This methodology is useful for conducting a high-level “scan” that reflects collective opinions, but does not yield in-depth responses or explanations.

HOW TO

Structured questionnaires can take many forms and have varying degrees of rigidity. They can range from qualitative (prompting respondents to provide short answer responses) to quantitative (with multiple choice responses that get collated afterward); anonymous to non-anonymous; and very brief to more involved. Distribution methods also vary. They can be carried out in-person (by a team of data collectors conducting standardized interviews) or digitally (with a computer form that is distributed and returned).

In selecting a respondent group, think about the population you want to represent and target. Make sure to set aside time to develop and refine the questionnaire and plan a method for distribution. It’s important to carefully strategize what questions are asked and how they’re sequenced and phrased. Consider testing the questionnaire for clarity and usefulness through sample interviews before the larger survey is conducted.

After data is collected, make sure to take into account what individuals have participated and responded. The data should be compiled, summarized, and analyzed by a trained data evaluator. Qualitative and quantitative questionnaires require different evaluation methods, but both will yield insights that should be verified and explained through more in-depth interviews and conversations.

TIME

5-30 min

MATERIALS

Pre-prepared questionnaire

TIPS

- 01 Be judicious with the number of questions and how they’re ordered. Ten well-considered questions can often yield more insights than 30 questions.
- 02 Think carefully about how questions are phrased, and make sure they’re not influencing people’s answers.
- 03 When analyzing responses, be critical about what data you think indicates a condition or trend.

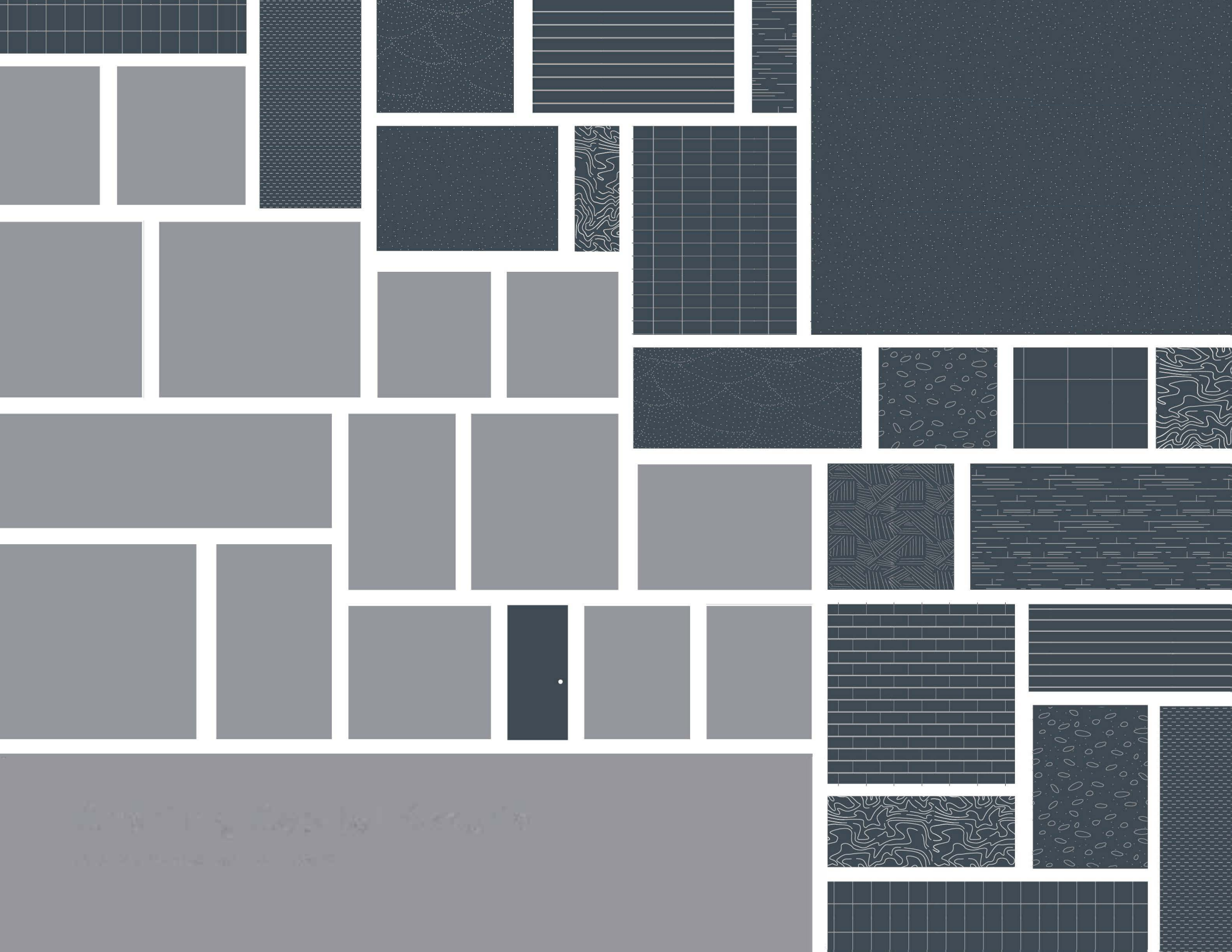
METRICS DATABASE (Sample: Full version coming in version 2.0)



The following catalog identifies metrics that can be used to evaluate the performance of a particular project.

CATEGORY	METRIC	MEASUREMENT	REFERENCE
Health Outcomes	<p>Patient satisfaction</p> <p><i>Degree to which an individual regards a provider's health care service, product, or the manner in which the service or product is delivered as useful, effective, or beneficial.</i></p>	<p>Surveys</p> <ul style="list-style-type: none"> • Scores of Likert type scales or subscales calculated • Percentage of "excellent responses" • Percentage of patients who are dissatisfied • Score of a single question of patient satisfaction 	<p>Donahue, L. "A Pod Design for Nursing Assignments: Eliminating Unnecessary Steps and Increasing Patient Satisfaction by Reconfiguring Care Assignments." <i>American Journal of Nursing</i>, 109:11 Supplement TCAB (2009), p. 38-40.</p> <p>Kline, T. J., Baylis, B. W., Chatur, F., Morrison, S. A., White, D. E., Flin, R. H., & Ghali, W.A. "Patient Satisfaction: Evaluating the Success of Hospital Ward Redesign." <i>Journal of Healthcare Quality</i>, 29:3 (2007), p. 44-49.</p> <p>Ko, H. H., Zhang, H., Telford, J. J., & Enns, R. "Factors Influencing Patient Satisfaction When Undergoing Endoscopic Procedures." <i>Gastrointestinal Endoscopy</i>, 69:4 (2009), p. 883-891.</p> <p>Krueckeberg, H. F., & Hubbert, A. "Attribute Correlates of Hospital Outpatient Satisfaction." <i>Journal of Ambulatory Care Marketing</i>, 6:1 (1995), p. 11-43.</p>
	<p>Nosocomial infection</p> <p><i>An infection that is acquired in a hospital as a result of medical care; also called hospital-acquired infection.</i></p>	<p>Medical record analysis</p> <ul style="list-style-type: none"> • Percent of NIs per 100 admits/ discharges • Number of NIs per 1,000 patient days • Number of hospital-acquired infections per patient • Risk of infection—percent of susceptible patients infected 	<p>Barnes, R. A., & Rogers, T. R. "Control of an Outbreak of Nosocomial Aspergillosis by Laminar Airflow Isolation." <i>Journal of Hospital Infection</i>, 14:2 (1989), p. 89-94.</p> <p>Ben-Abraham, R., Keller, N., Szold, O., Vardi, A., Weinberg, M., Barzilay, Z., & Paret, G. "Do Isolation Rooms Reduce the Rate of Nosocomial Infections in the Pediatric Intensive Care Unit?" <i>Journal of Critical Care</i>, 17:3 (2002), p. 176-180.</p> <p>Crimi, P., et al. "Microbiological Surveillance of Hospital Ventilation Systems in Departments at High Risk of Nosocomial Infections." <i>Journal of Preventive Medicine and Hygiene</i>, 47:3 (2006), p. 105-109.</p> <p>Swoboda, S. M., Earsing, K., Strauss, K., Lane, S., & Lipsett, P. A. "Electronic Monitoring and Voice Prompts Improve Hand Hygiene and Decrease Nosocomial Infections in an Intermediate Care Unit." <i>Critical Care Medicine</i>, 32:2 (2004), p. 358-363.</p>
	<p>Length of stay</p> <p><i>Period of time during which a patient is confined to a hospital or other health facility.</i></p>	<p>Medical record analysis</p> <ul style="list-style-type: none"> • Actual days <p>Surveys</p> <ul style="list-style-type: none"> • Patients' perceived days 	<p>Tran, T. P., Schutte, W. P., Muelleman, R. L., & Wadman, M. C. "Provision of Clinically Based Information Improves Patients' Perceived Length of Stay and Satisfaction with EP." <i>American Journal of Emergency Medicine</i>, 20:6 (2002), p. 506-509.</p>

Adapted from The Center for Health Design's *Healthcare Environmental Terms and Outcome Measures: An Evidence-based Design Glossary* (2011).



Handwritten text in a light gray font, possibly a signature or a note, located in the bottom left corner of the collage.