LEED Health Process

Monitoring Outcomes Guide

This Monitoring Outcomes Guide contains recommendations for the development of a monitoring and evaluation plan for a building construction or renovation project. This guidance tool is part of the LEED Health Process Guidance for Project Owners and Project Teams. This guide is designed to help the Health Process Coordinator, health partners and project team create a draft plan to measure and observe the impact that their project health, well-being and equity strategies have on the occupants and community throughout the project life cycle (design, construction and operation).

Importance of Monitoring and Evaluation

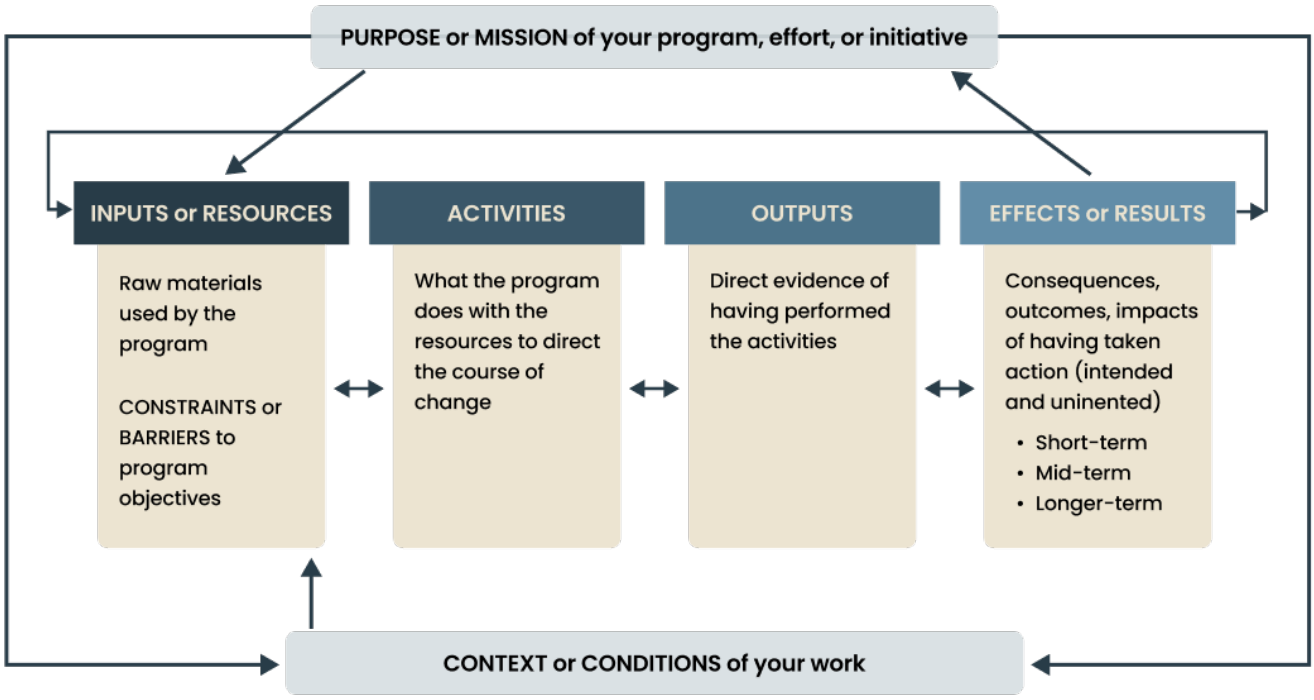
Developing a draft plan during the design and construction phase prepares the project owner and Health Process Coordinator for future monitoring and evaluation efforts. Although the design and construction teams won't be involved in future monitoring efforts, their perspectives are valuable inputs into the creation of a monitoring plan. During the LEED Health Process, the full project team prioritizes specific strategies that are intended to have specific outcomes. Creating a draft monitoring plan at this stage allows the design and construction teams an opportunity to influence how the impact of those prioritized strategies might be evaluated during project operations.

***Note:** The project team is not required to implement the monitoring and evaluation plan in order to achieve formal certification of the LEED Health Process (also known as the LEED Integrative Process for Health Promotion pilot credit).

Performance Data and Metrics

Project monitoring and evaluation efforts can serve two distinct purposes: 1) assess the impact of specific strategies and/or 2) inform ongoing operations. These two distinct purposes should be kept in mind when drafting the monitoring and evaluation plan.

For the purpose of assessing impact, the Health Process Coordinator will guide development of the monitoring and evaluation plan according to the health goals identified during the *Engage Communities* step of the LEED Health Process. The provided example monitoring and evaluation plan (available as a template below) guides project teams to document the specified population health goal, the prioritized health strategy and potential performance metrics to assess impact. In some cases, design strategies and interventions may intend to address multiple health and well-being goals at once.



Planning your evaluation: Key components of a logic model. Peers for Progress, UNC Gillings School of Global Public Health. 2021. Available from: **http://peersforprogress.org/resource-guide/planning-your-evaluation/**

Utilize a public health logic model (above) to guide consideration of specific performance metrics. Influencing public health takes time, the team should not expect to see immediate changes in population health. Rather, a logic model approach helps teams consider more mutable, proxy metrics that highlight the impact that the project's design and construction has first on the school environment, then on population health attitudes, health behaviors and ultimately health outcomes. The school facilities team is not responsible for monitoring changes to population health. Rather, this team should focus on monitoring changes to the project environment and work in partnership with health partners to understand the relationship between changes in the project environment and population health.

To evaluate the project's impact on the project community throughout the project life-cycle, relevant metrics could include quantitative and qualitative data such as information on air quality, energy efficiency, absenteeism / employee engagement, incidence rates of asthma, use and funding of community resources, occupant perspectives and many more. Below is an example of a draft monitoring and evaluation plan based on a project health goal. Additional information on developing a draft monitoring and evaluation plan may be found in the LEED Health Process pilot credit resources section.

For the purpose of informing ongoing operations, the Health Process Coordinator should convene a discussion between the design and construction teams and the project's facility manager(s) to discuss the ramifications of the prioritized health strategies during building operations. Design and construction practitioners may be able to share thoughts and ideas on how to make adjustments during the operations phase should any health design strategies not perform as expected.

Example Monitoring and Evaluation Plan:

Health Goal	Intervention	Strategy	Performance Metrics	Responsible Parties	Frequency
Decreasing incidence of asthma.	Eliminate or reduce the use of potential asthmagens.	Design strategy specifies linoleum, wood or cork flooring.	**Design Metrics:** No carpet flooring included in project plan. Only hard surfaces are used. **Operations Metrics:** Screen indoor air for presence of asthmagens. **Health Metrics:** Track incidence rate of acute asthma events.	**Design Metrics:** Architect to certify no carpets used in design. (Name/Org/Contact) **Operations Metrics:** Facilities manager will engage an IEQ consultant to measure levels of formaldehyde. (Name/Org/Contact) **Health Metrics:** In the case of housing, resident services to track rates of asthma incidents among residents. (Name/Org/Contact)	**Design:** Verified plan prior to construction. **Operations:** To be measured once per quarter. **Health:** Annual survey or data collection.

Collecting Performance Data

Population health and well-being performance data can be collected through a variety of mechanisms:

- Building information management systems
- Direct measurement (such as of air, water, lighting, acoustics, etc)
- Community surveys

Community Surveys

Surveys can be used to monitor the impact of chosen health strategies. Gathering qualitative information from the project community can reveal the community's attitudes toward sustainability, health and equity as well as behaviors related to the project's health goals.

Surveys should be administered at multiple points throughout the design, construction and operation process. Before construction begins, responses will help project teams establish a health and well-being baseline. Administering the same survey once the project is occupied will reveal changes in population health and well-being that can be associated with the new facility. An important note regarding correlation vs causation: information gathered through surveys cannot substantiate any claims of causation. The team is not able to definitively say that a specific health design strategy caused a specific population health impact. However, survey data can be used to support claims of correlation.

Additional Resources for Monitoring Outcomes:

Arc Skoru. A sustainability performance tracking platform helping to empower project teams and recognize operational performance leaders. Arc evaluates and scores energy, water, waste, transportation and human experience data.

MeasureUp. A Build Healthy Places Network microsite of resources and tools to help you measure and describe the impact of your programs on families and communities and on factors related to health.

Healthy Housing Outcomes Survey. Survey developed by Enterprise Community Partners and NeighborWorks America to measure changes in resident health outcomes most likely to be influenced by healthy housing development. This survey can be used as a point-in-time measurement of resident health related to housing but will be more impactful if administered annually to assess trends in the health and well-being of residents over time.