



Green Schools for Health:

A District's Roadmap to the LEED Health Process



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Introduction

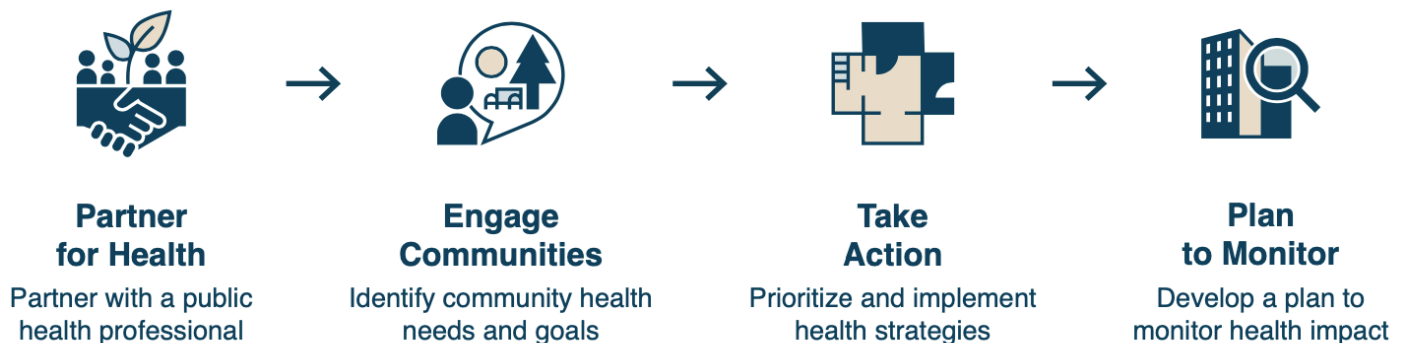
A school can be an environmentally sustainable place that protects and promotes the health and well-being of everyone who interacts with it, including students, staff, and people from surrounding communities. Many school districts and some states have green building policies for modernization projects that may be leveraged to promote co-benefits including population health, social equity, and sustainability. The ****LEED® Health Process**, broken down in this *Roadmap*, offers a framework for school facilities and design teams to integrate health promotion into school modernization projects and incorporate health more explicitly into green building practice.

About the LEED Health Process

Health, social equity, and environmental sustainability are intertwined. Traditional green building rating systems include several strategies that also promote human health and provide a solid starting point for project teams to build health into schools. However, maximizing modernization projects to advance health promotion requires thoughtful and explicit action from building owners and practitioners.

The LEED Health Process provides school facility operators and practitioners with a framework for promoting population health through building design and construction, using a tailored approach and best available strategies from LEED and other frameworks. Specifically, the process guides teams on how to **engage public health expertise** and **community perspectives** to form explicit health goals, **take action** to address those goals, and begin planning to **monitor impact**. This kind of targeted, needs-based process can more quickly advance positive outcomes for schools beyond what they could expect from a standardized checklist. The process also identifies new ways for teams to connect with district health staff around health promotion—for example, by identifying and responding to new health threats, such as the COVID-19 pandemic.

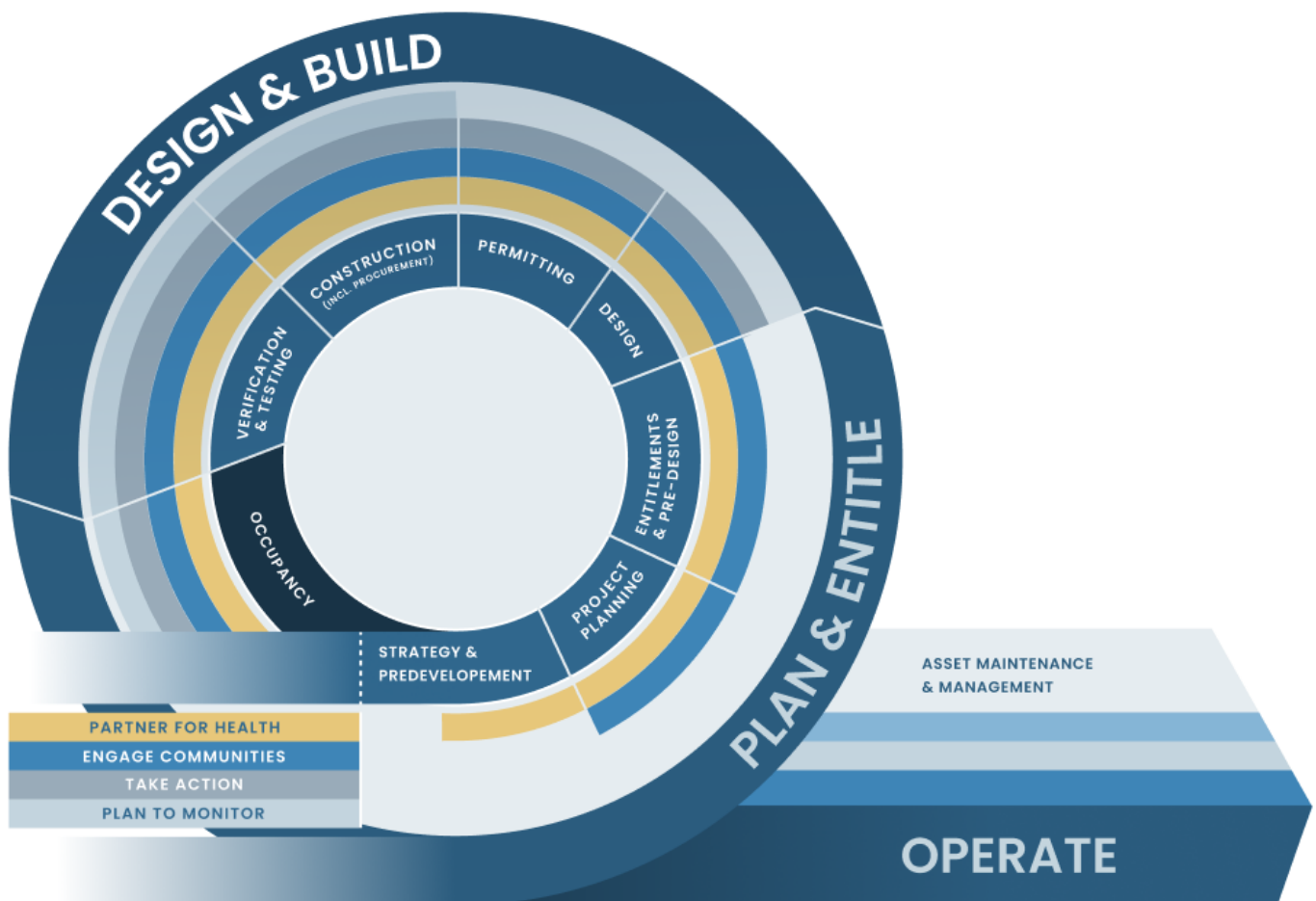
School districts with existing green building requirements should consider using the LEED Health Process to guide their approach to green building. While the LEED Health Process is written for use at the individual project scale, the process is also well suited for application at the school district portfolio scale.



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The LEED Health Process

The LEED Health Process is available as the LEED v4 Integrative Process for Health Promotion Pilot Credit and within the LEED v4.1 Integrative Process credit. The process also is aligned with 2020 Enterprise Green Communities Criterion 1.5, Design for Health and Well-being. The Green Health Partnership, an initiative of the University of Virginia School of Medicine and the U.S. Green Building Council, developed the process in collaboration with Enterprise Community Partners and the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts.



See the LEED Health Process, here mapped out along a typical project development timeline. Partnering with health professionals should ideally begin in strategy and predevelopment, community engagement throughout the entire project lifecycle, taking action to implement healthy strategies during the design & build phase, and creating a plan to monitor outcomes throughout the design and operations phases. Not every project will follow this timeline exactly. Health promotion efforts will likely differ between projects, but can and should be incorporated at every stage of project development.

Image: The Green Health Partnership, inspired by [Centering Health Equity](#).

About This Guide

The purpose of the *District’s Roadmap to the LEED Health Process* is to support Pre-K-12 school district facilities teams as they incorporate health and well-being throughout the school design and construction process.

Public health and social equity are linked inextricably within our built environment. The places we spend time have a direct influence on our access to resources and social networks, so integrating health-promoting design features in an equitable way requires a deeper level of intentionality. Throughout this guide, callout boxes provide examples of how districts and teams can incorporate social equity considerations into their approaches to modernization and new construction projects. In addition, the [Centering Health Equity beta framework](#) and these [additional resources](#) focused specifically on social equity can help districts and teams take a more in-depth, holistic approach.

What This Guide Is

- **STEP-BY-STEP** guidance for the LEED Health Process pilot credit.
- **A PROCESS IMPROVEMENT TOOL** to enhance and supplement a school green building strategy.
- **AN EFFORT** to help project teams improve community engagement and bring additional voices to decision-making processes.
- **A COLLECTION** of resources to help projects integrate health promotion across all aspects of school construction and modernization.

What This Guide Is Not

- **A STAND-ALONE** certification process for health, well-being and equity.
- **A PRESCRIPTIVE SET** of health and well-being strategies for school modernization projects.
- **A SUBSTITUTE** for subject matter experts on public health and social equity or for school counselors and mental health experts.

A primary aim of the *Roadmap* is to help school teams leverage their district-level health capacity and expertise to engage students, staff, and the school community throughout the project delivery process and facility life cycle. Consistent engagement with the school community not only benefits health and well-being outcomes, but also helps teams align health goals with school environmental and sustainability objectives that otherwise may not have been included in facility planning.

Who is this Guide For?

The primary audience for the *District's Roadmap to the LEED Health Process* are Health Process Coordinator(s), the person or people principally responsible for integrating health promotion into the green school building design process and facilitating conversations with the rest of the project team, developers, consultants, and other stakeholders. Although this guidance is primarily intended for the Health Process Coordinator, all members of the team would likely find the *Roadmap* a useful resource to help support interdisciplinary application of the process. This *Roadmap* focuses on projects for designing and building new schools or making significant modernizations and renovations to existing school structures, including interior design and construction.

Ideally, the Health Process Coordinator should be affiliated with the school district to ensure consistent decision-making across the district's portfolio. While the Health Process Coordinator could be a dedicated position, it is likely that the Coordinator will serve in multiple roles. For instance, the Health Process Coordinator could be the school district health or sustainability lead, a district facilities manager, and/or another district-level staff member. If internal capacity for this role isn't available, the district may hire an external consultant to manage and implement the Health Process.

For the construction or modernization of one school building, the Health Process Coordinator is expected to need from **40-100+ hours** to implement the LEED Health Process depending on the project and the team's level of familiarity with health-promotion processes.



GETTING STARTED: School District Health Planning

By embedding health into the district-level facilities plan, school districts can promote health throughout their portfolios. To take full advantage of opportunities to integrate health into building modernization or new construction, district facilities leaders should start by organizing an internal health team. Facilities leaders should appoint a Health Process Coordinator to develop an internal school district health team by engaging health-oriented stakeholders from other departments, including nutrition, physical education, health services, counselors, and community relations.

Request for proposals (RFPs)

When issuing an RFP, consider stating explicitly that teams will be expected to use the LEED Integrative Process for Health Promotion to guide pursuit of a specific level of LEED (or similar) certification. By including these details within the RFP language, building owners are more likely to attract design teams with health-oriented experience and/or interest. Visit page 3 of [this resource](#) to see how one school district incorporated language for the LEED Health Process within their RFP.



I. PARTNER FOR HEALTH: Enlist School District Health Partners

The LEED Health Process provides lasting value by helping district facility staff harness the existing knowledge and expertise of district-level health staff about priority student and staff needs and apply this perspective to school facility decision-making.

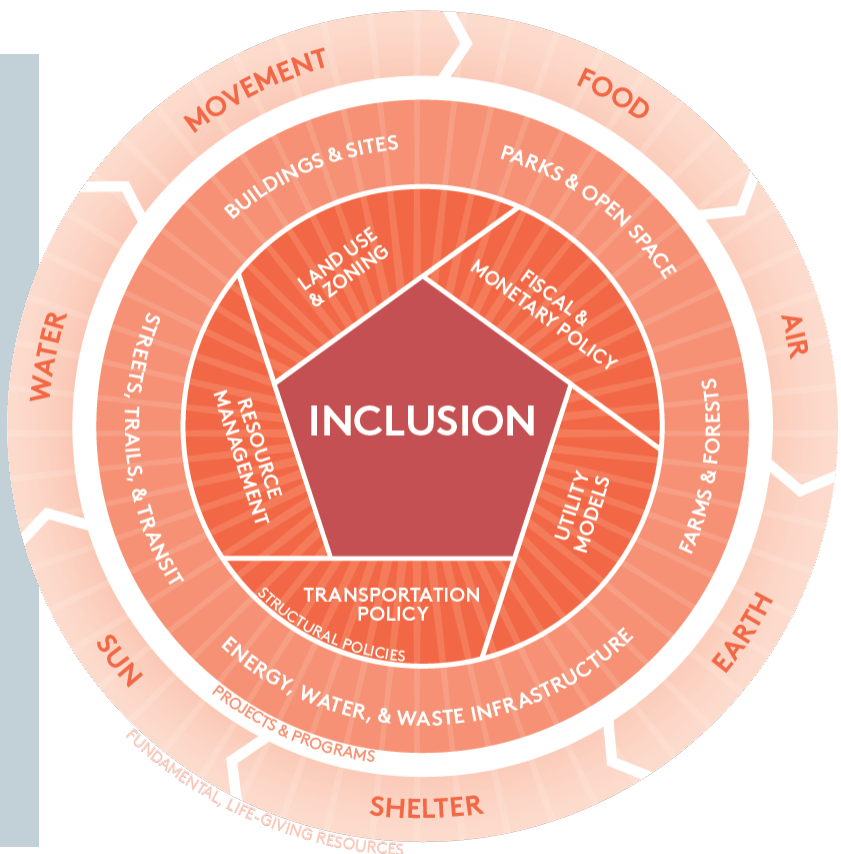
The Health Process Coordinator should identify health partners from inside the school district and gain approval to engage them in the facility decision-making process. Before reaching out to them, however, the Health Process Coordinator may want to review public health concepts and frameworks on how health stakeholders can contribute to school facility decisions. (A few of these concepts and frameworks are available within the Health Process Guidance & Resources section of this guide.) Consider engaging health partners from a range of backgrounds, such as school district nurses, nutritionists, and physical education professionals who possess essential school community health information, as well as social workers and guidance counselors. If they are interested and available, members of the school board, Superintendent, and Assistant Superintendent may also serve as highly valuable partners with deep knowledge of the school community.

Engaging expertise and compiling a breadth of perspectives on health, well-being, and equity needs can help ensure that school project planning, design, and construction processes are as inclusive and informational as possible. Holding a workshop that brings together district health staff with members of the facilities team or other relevant district stakeholders also may be beneficial. Internal workshops help the cross-departmental team get acquainted, kick-start the conversation about health and well-being promotion, and provide space to create and review district health values. See more in the included [Workshops Guide](#).

Social determinants of health

Social determinants of health (SDOH) are the conditions in the environments in which people are born, live, learn, work, play, worship, and age that have a major impact on health, well-being, and quality of life. SDOH are typically grouped into five categories: economic stability, education access and quality, health care access and quality, social and community context, and neighborhood and built environment.

Through green building certification, project teams can have the most impact on the social and community context and neighborhood and built environment categories. For more information on applying SDOH principles to real estate practice, visit [this guide](#).



Inclusion drives health: By centering equity in their projects, individual practitioners have the power to increase equitable access to life-giving resources and promote health equity.



PARTNER FOR HEALTH: Equity Lens

Aim for a diversity of cultural backgrounds and perspectives when building your internal health process team. Consider how your team's demographics compare to the school community's demographics. Can the team shape its engagement process in the next section to address any differences in demographics between the internal health process team and the school community?

- [Resource: Racial Equity Impact Assessment and Racial Justice Organizational Assessment Tools - Consumer Health Foundation](#)
- [Resource: Racial Equity and Social Justice Lens - Portland Public Schools](#)



2. ENGAGE COMMUNITIES: Identify Community Needs & Goals

Use the knowledge and skills of district health staff to engage with the school population, including (if possible) principals, teachers, non-teaching staff, students, parents, and the surrounding community. A substantial body of evidence suggests that community engagement not only helps improve student achievement but also helps build a school culture that supports all students (McAlistar, 2013). The engagement step of the LEED Health Process helps the team better understand the communities that may be impacted by the school project; identify the most pressing health, well-being, and social equity needs; and explore how the school facility might address those needs by building an environment where all students are equipped to thrive.

Depending on capacity and financial resources, the Health Process Coordinator and team may choose how much time to spend on assessing community needs, understanding that more extensive engagement leads to better understanding of the populations impacted by the project, which will help guide school design and development.

Completing a needs assessment requires a holistic understanding of who will be impacted by project facility decisions. Relevant populations include:

- Students, staff, and vendors/contractors, as site users of the building.
- The members of the broader school community who live, work, and play in the area(s) surrounding the project site.
- Populations along the project's supply chain and waste stream (including service vendors and janitorial services) that are affected by the sourcing of materials, consumption, and waste production.
- Global populations that are impacted by a project's resource consumption and greenhouse gas emissions.

Engaging communities across multiple schools

School modernization is an opportunity to improve sustainability, health and well-being, and equity for the school community —yet each community is unique and requires unique solutions. If a district is managing multiple construction, renovation, or modernization projects simultaneously, the Health Process Coordinator and project team should conduct and budget for community engagement specific to each school project, recognizing that each school population will have distinct needs that affect their respective communities in different ways.



Not every school project will have the ability to prioritize health impact at all these scales. However, considering the project in a broader context will help the team identify which population scales offer opportunities to best leverage impact within available resources.

Create a School Community Health Profile (located within the [Community Health Profile Guide](#)) with relevant information about the prioritized populations and associated health promotion opportunities. These profiles may require data collection from a variety of sources, which may be resource-intensive. To help address staff capacity concerns, consider enlisting a public health intern or graduate student to lead or contribute to the creation of School Community Health Profiles. Public health students are uniquely qualified to assist with health profile assessments and coordinate outreach with schools. Following are suggestions for collecting those data and insights (starting with those methods that are least resource-intensive to most):

- ◆ **Utilize existing data:** By collecting demographic data on student and staff populations, project teams will gain a greater appreciation for the people to be affected by the project. The district likely has access to school-level health data, including illness incidence, chronic conditions and illness-related absenteeism. Engage district health staff (nursing, nutrition, physical education) to develop an understanding of baseline community health status and the most pressing health challenges.
- ◆ **School observation:** For a modernization or replacement project, observe the pre-modernization school environment and the school neighborhood to understand how students, staff, and/or surrounding community members interact with the existing school facility. Note design features that may be improved, like spaces that encourage movement, connection, and areas to de-stress.
- ◆ **Conduct community surveys:** Use surveys to better understand the school community's experience and perspective. Student, teacher, and school staff surveys can establish a baseline for health and well-being in the school and may be readministered after project completion to help measure success. It is important to distribute these surveys to students and staff before the modernization. (More information and sample survey questions are included in the Plan to Monitor section of this guide).
- ◆ **Direct community engagement and feedback:** Directly engaging with impacted communities—whether in person or via virtual meetings—helps amplify their voices and ensure that power sits with those communities. Their input and feedback should inform project goals and planning, thus supporting the project's success. Topics to consider for direct community engagement include:
 - How have the school and surrounding neighborhoods interacted historically?
 - Are there elements of the school building that have inspired pride or been detrimental to the surrounding community?
 - How may this project foster a healthy relationship between the school and the community?

After collecting community health data and creating a School Community Health Profile, project teams should host a goal-setting workshop—which includes the facility design team, school team and other health-oriented stakeholders. Goal-setting workshops offer an opportunity to review school community needs and define health promotion goals based on observations made during community engagement. Health Process Coordinators might ask those attending the workshop how they define health and well-being, how school design can support health goals and values, and how schools might track the impacts of their health promotion efforts.



ENGAGE COMMUNITIES: Equity Lens

When engaging impacted communities, identify specific needs and priorities that might only affect smaller groups of students, staff, and/or surrounding community members. When compiling data, go beyond averages. Disaggregate data by race, gender, and other relevant demographic and socio-economic variables such as housing insecurity, English Language Proficiency, and other factors.

- [Resource: How to Advance Equity Through Health Impact Assessments - SOPHIA](#)
- [Resource: Healthy Communities Initiative Equity Checklist - Jay Pitter Placemaking](#)
- [Resource: The Community Engagement Guide for Sustainable Communities - PolicyLink and the Kirwan Institute](#)
- [Resource: Comprehensive Community Needs Assessment Tool - Community Action Partnership's Data Hub](#)

Consider using a flexible engagement process that allows community members to provide feedback in a manner of their choice. Flexibility can be important when engaging populations of different ages, languages, and abilities.

- [Resource: Community Engagement - World Health Organization](#)
- [Resource: Engaging Community, Guides for Equitable Practice - AIA](#)

Explore the historical context of both the school and the surrounding community. If a history of harm or disinvestment in a particular population exists, consider how the school facility might address that history.

- [Resource: EJScreen - U.S. Environmental Protection Agency](#)
- [Resource: Land Justice Guide - Resource Generation](#)

Community liaisons

School districts also should consider hiring community representatives to inform and potentially lead community engagement. Providing compensation for this role, either through a stipend or otherwise, acknowledges the time, expertise, and value that community members bring to development projects.

- [Resource: Community Liaison Framework Quick Guide - Urban Health Partnerships](#)





3. TAKE ACTION: Prioritize & Implement Health and Well-Being Strategies

Throughout the discovery phase of the LEED Health Process, project teams will focus on learning more about their school's health and well-being needs and preparing for the design process. During this time, teams will consider various health strategies for meeting their school's needs. These strategies may come from many sources - school district reporting, counseling and health professionals, credits from rating systems such as LEED or the WELL Building Standard, principles from frameworks like active design or trauma-informed design, and school-specific health and safety design frameworks. See the [Mariposa Healthy Living Initiative](#) in the resources section of this guide for inspiration on how to effectively combine different strategies from different rating systems and frameworks. Also focus on considering strategies both inside and outside of the school building's walls to include explicit consideration of the schoolyard and site design. The best way to prioritize these strategies to meet health and well-being goals is through a health design charrette or workshop to kick-start the implementation phase.

3A. PRIORITIZE STRATEGIES: Health Design Charrette

Continue crafting the project narrative, objectives, and criteria for success by holding a health design charrette or workshop with school district facilities and staff members, school health partners, and the design team. Health design charrettes provide an opportunity for the project team to align health promotion strategies and programs with knowledge and insights gained from the community engagement process. To support an integrated and holistic approach, a health design charrette should be incorporated into a green charrette early in the design process.

Hosting workshops for multiple school projects

Some project teams may manage only one school modernization project at a time, while others choose to apply the LEED Health Process at the portfolio scale. For districts undergoing multiple school modernization, design, or construction projects at once, hosting more than one health design charrette or workshop may help teams select health-promoting design strategies more effectively. Host workshops for projects in roughly the same phase of the project development timeline and/or set both district-wide and school-specific health and well-being goals.





There are a few ways to approach health design charrettes. Teams may host one or more charrettes, workshops, or meetings to establish health goals, depending on the project timeline and the number of schools undergoing modernization. During these workshops, participants review the health and well-being needs identified during community engagement, with special attention to engaging the voices and perspectives of team members and professionals who have not been involved in previous facilities decision-making processes. Ahead of the [health design charrettes or workshops](#), all participants should review the project's health goals and come prepared to brainstorm specific school facility strategies that could be implemented to address the project's health goals.

All participants should think comprehensively about the factors that influence health and well-being for the school community. Potential questions to engage during the workshops include:

- How could design strategies improve physical, mental, and social well-being? And what are your common hurdles to improvement?
- What is the likelihood of strategies having significant effects on health and equity for populations impacted by the project?
- Which strategies are most responsive to community health needs and concerns?
- Are suggested strategies feasible in terms of cost, resources, technical constraints, etc.?
- What are the potential synergies between health promotion and other project goals, including sustainability performance?

When considering which design strategies will best support project health goals, it may help to use a frame of “software” strategies versus “hardware” strategies.

“Software” strategies

Programmatic strategies planned for a school based on the community's health and well-being needs. For example, a school-wide initiative to promote drinking water.

“Hardware” strategies

The design + construction strategies implemented to support an accompanying programmatic strategy. For example, drinking fountains strategically placed outside of gymnasiums or in highly trafficked hallways.

Project teams should consider design and programmatic strategies that affect people beyond the immediate school community. Although this guide focuses on creating positive impacts for a school's occupants and surrounding community, teams should also consider potential impacts on the supply chain, waste stream, and global health. Strategies could address responsible sourcing of materials, construction worker health and safety, pollution prevention, and more.

If project teams are applying the LEED Health Process at the portfolio scale, design strategies may differ among schools. Each population is distinct and requires creative solutions for addressing health and well-being, although strategies are likely to overlap.

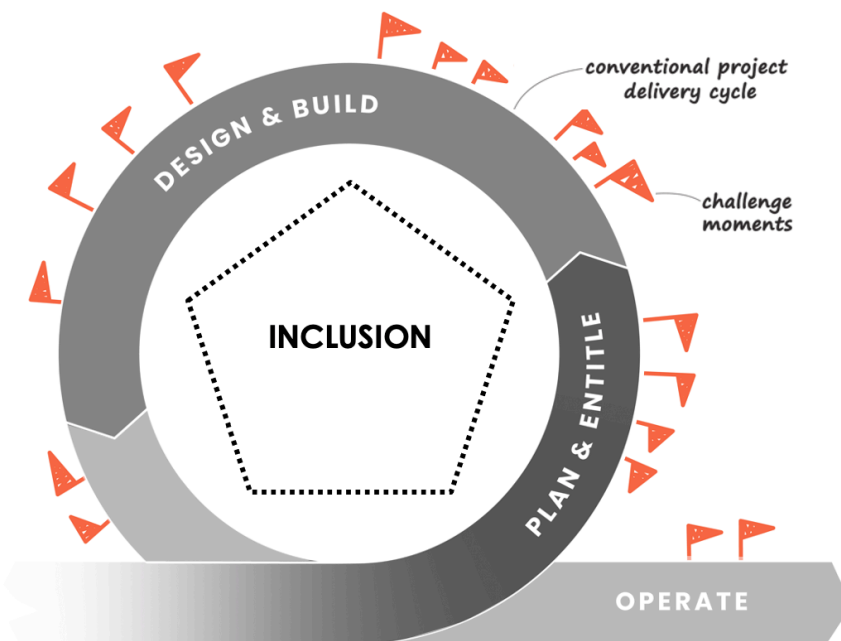
Using LEED credits to promote health

The LEED Health Process pilot credit was created to help project teams maximize the health-promotion potential of LEED and other health-focused rating systems. Health-promoting credits may be found across credit categories. By prioritizing these credit requirements to align with other objectives, projects can target achievement of health goals most relevant to their populations. For a more detailed assessment of using green building certification systems to promote health and well-being, see the [LEED & Health Credit Guide](#).

3B. IMPLEMENT STRATEGIES: Finalize Project Design

With the insights and knowledge gained from health partners, community health profiles, and health design charrettes, the project team will move into the implementation phase of the LEED Health Process. The main objective for this phase is to ensure that the final project design addresses specified health needs or best practices, with specified outcomes and goals in mind. During this phase, the Health Process Coordinator and facilities should continue collaborating with the design team to vet the feasibility of incorporating the design features and programmatic strategies in the school project in a way that best supports the needs of the students, staff, teachers, and community members who will interact with the building(s) regularly.

Image: Ishizaki E, Worden K, et al. (2021)



Built environment projects are driven by a delivery cycle that involves a variety of decision-makers at distinct and sometimes overlapping developmental stages. During the implementation phase, consider when prioritized actions need to take place and plant "opportunity flags" for health to orient project team decision-making around health equity goals. See the [Centering Health Equity beta framework](#) to explore this concept further.

The implementation phase also typically includes value engineering, the practice of maximizing the owner's budget by identifying and removing high cost/low value designs or materials as cost estimating is developed. It is important to identify milestone health strategy reviews and even benefits/burdens analyses at all project approval and costing milestones to provide the Owner with information about potential impacts to the ability to meet the health objectives, criteria, and priorities established earlier in the project. Required health-promoting features, strategies, and criteria should be clearly defined in construction documents. The Health Process Coordinator should remain engaged with the design team(s) throughout implementation and serve as a resource to facilitate any questions or needed decisions that may arise.



TAKE ACTION: Equity Lens

When prioritizing design strategies, ensure that discussion is grounded in an understanding of the unique cultural and demographic context of the school and impacted communities, and acknowledge that the cultural and demographic context of every school is continually evolving. Think outside the traditional green building box to consider other strategies with documented impact on student health and health equity now and into the school's future, such as those related to trauma-informed design or those that incorporate community-created art pieces in schools. Also consider the unique relationship between a school facility and the surrounding community and how certain exterior and landscape strategies might support the joint use of facilities to promote community health.

Throughout the design and construction process, the team should maintain open communication with the community to ensure that the project's approach remains aligned with community priorities. At a minimum, the team should communicate priorities and actions back to the community that was engaged to inform the project's health goals.

- [Resource: LEED Project Team Checklist for Social Impact - U.S. Green Building Council Social Equity Working Group](#)
- [Resource: Introduction to equityXdesign - Equity Meets Design](#)
- [Resource: Equitable Development Frameworks: An Introduction and Comparison for Architects \(AIA\)](#)

Community liaisons

If engaging paid community liaisons, include these community members in project charrettes. Position community liaisons as active collaborators during the implementation process to ensure that the approach remains consistent with the community's vision.

- [Resource: Community Liaison Framework Quick Guide - Urban Health Partnerships](#)



4. PLAN TO MONITOR: Develop a Plan to Monitor Health Outcomes

In this step of the process, district staff work with the design team to develop a longer-term monitoring and evaluation plan for assessing progress toward specific population health goals. Facilitating a conversation about monitoring impact at this project phase also creates space for innovative thinking regarding specific metrics and allows the facility team to benefit from the design team's ideas and perspective.

Formal certification and monitoring

Teams seeking formal recognition for following the LEED pilot credit do not need to implement the monitoring plan. Instead, LEED project teams simply need to submit documentation describing the plan.

The public health “logic model” approach offers a helpful framework for discussing which metrics to use and how to measure health impacts, which are often difficult to see and take time to materialize. The logic model framework also inspired the documentation template for project monitoring and evaluation, available within the [pilot credit resource library on usgbc.org](#) and within the resources section of this guidance document. Using a logic model can help teams identify both short-term and longer-term metrics, many of which could be building and environmental metrics rather than traditional health metrics.

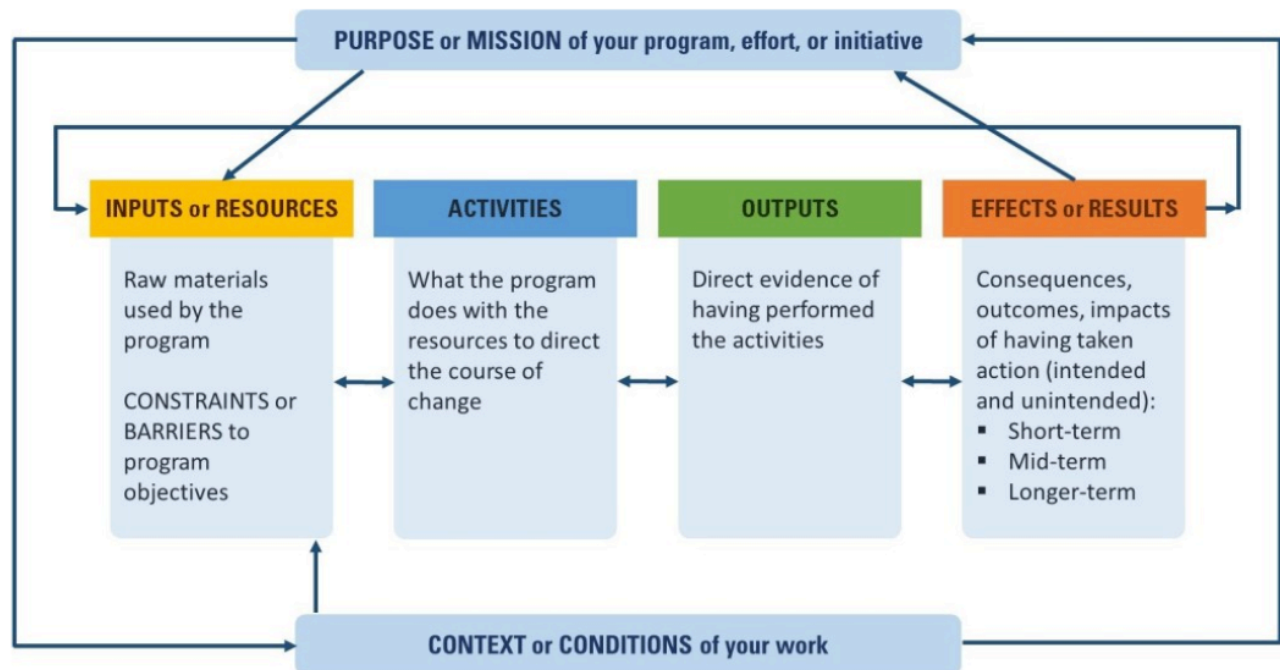


Image: Planning your evaluation: Key components of a logic model. Peers for Progress, UNC Gillings School of Global Public Health. 2021. Available from: <http://peersforprogress.org/resource-guide/planning-your-evaluation/>

Depending on the project’s specifics and the project team’s capacity, monitoring and evaluation strategies may be incorporated into the LEED Health Process in several ways. Implementing monitoring strategies isn’t necessary to achieve the LEED Health Process pilot credit, yet school project teams should prepare for and plan to monitor health and well-being outcomes. The following are possible pathways for monitoring and evaluation plans, (starting with those approaches that are least time-intensive to most):

- ◆ **Occupant Surveys:** Pre- and post-occupancy health and well-being surveys may reveal how school buildings influence perceptions of sustainability, health, and equity, as well as behaviors related to the schools’ health goals. Pre-occupancy surveys, introduced in the “Engage Communities” section, help teams establish a health and well-being baseline while students and staff are in their original school environments. Post-occupancy surveys may be readministered after completing the project to help assess success.
 - Surveys should be short and simple: Ask basic, yet revealing questions related to the school’s health and well-being goals. Work with your health partners and stakeholders to develop different surveys for different student levels and staff members. Example questions could include:
 - Do you know where the following health services are located in your school building? When you feel anxious, nervous or stressed at school, do you have a “safe place” to retreat?
 - Do you use the community resources that your school provides (activities/programs/workshops) outside of school hours?



- ◆ **Building Performance Data and Human Health Metrics:** You may choose to monitor health outcomes by considering the corresponding design and operation metrics for their health and well-being goals. Relevant metrics could include quantitative and qualitative data and information on facility data like air quality and energy efficiency, and human health metrics such as absenteeism, childhood obesity rates, incidence rates of asthma, use and funding of community resources, community outreach for health and equity education, student and staff perspectives, and many more.
 - Performance data and metrics also may span the different phases of project development. For example, if an efficient HVAC system is embraced during the design phase, metrics may include an improved measurement of indoor air quality during the operations phase and decreased rates of asthma throughout the life of the building.
 - Platforms like [Arc Skoru](#) can help project teams understand building performance metrics for energy, water, waste, air quality and human experience. USGBC's Center for Green Schools helps districts get started with Arc in [this guide](#).

Additional details on monitoring and evaluation and example surveys and plans may be found in the [Monitoring Outcomes Guide](#). To support a continuous improvement approach to school community health outcomes, it is most helpful to spend some time upfront to plan how the district will gather information about building performance and human health, report, and use it over time. Design and planning for the school community's health and well-being is important, but the best way to ensure long-term success is to consider proactively how health will be monitored after the project is completed and how monitoring will inform ongoing operations. In a school setting, it is also possible to use monitoring as a teaching tool for students, creating health and sustainability lessons and other STEM learning lab projects.

PLAN TO MONITOR: Equity Lens

Monitoring should track impacts that affect smaller groups of students, staff and/or members of surrounding communities. When creating a monitoring and evaluation plan, go beyond averages. Disaggregate data by race, gender, and relevant demographic variables.

Sharing performance metrics with the school community may help teams create a positive feedback loop for the project. Sharing data and metrics can increase transparency and help build a sense of trust and continued engagement with the community.

- [Resource: SEED Evaluator 4.0 - Social Economic Environmental Design Network \(SEED Network\)](#)
- [Resource: LEED Pilot Credit: Social Equity Within the Operations and Maintenance Staff - U.S. Green Building Council](#)

Conclusion

Through the LEED Health Process, school districts can create enduring, positive change to the health of their communities and gain a greater understanding of how the built environment influences the health and well-being of the people who learn, work, and play in their schools. By using a process-oriented approach, school project teams can implement design and programmatic strategies tailored to their school's health needs.

With this guidance and its supplemental resources, the LEED Health Process should not require additional funding and the modernization schedule should not be delayed. On the contrary, anecdotal evidence suggests that this process can increase efficiency. A district that finds this process valuable may consider adopting the LEED Health Process as a policy, either as a supplement to an existing green building requirement or as a stand-alone requirement.

For those districts and project teams seeking to formalize their commitment to health and well-being with LEED certification, many additional resources and templates for process documentation may be found on the Integrative Process for Health Promotion pilot credit page on USGBC.org. The certification appendix at the end of this document will help teams map the LEED Health Process steps within this document to the formal steps of the pilot credit used for certification.

Health Process Guidance & Resources

PARTNER FOR HEALTH: Enlist School District Health Partners

Workshops Guide. See the “Internal Planning Workshop” portion of the associated Workshops Guide for support hosting an interdisciplinary planning workshop. (Same resource as ‘Workshops Guide’ below.)

Foundations for Student Success. This report from Harvard T.H. Chan’s School of Public Health helps practitioners better understand how school buildings influence student health, thinking, and performance. Reading the report with your school’s population in mind may help project teams develop a public health perspective to support health-oriented decision-making throughout the project.

Social Determinants of Health for Real Estate. This guide gives an overview of the social determinants of health and their impact on health, well-being, equity, and quality of life. As green building practitioners, we can influence real estate practice to provide the best possible outcomes for communities, neighborhoods, and the built environment.

Enterprise Green Communities Technical Assistance Provider Registry. Explore the this registry and filter by “public health” to discover vetted consultants with experience approaching green building with a public health lens.

ENGAGE COMMUNITIES: Identify Community Needs and Goals

Community Health Profile Guide. A guidance tool to help the Health Process Coordinator and health partners prepare for and facilitate a community needs assessment to define priority community health needs and goals.

- **Community Profile Assessment Form.** A tool for collecting essential public health data and information on the affected population. Located in the Community Health Profile Guide.

TAKE ACTION: Prioritize & Implement Health and Well-Being Strategies

Workshops Guide. A guidance tool to help the Health Process Coordinator plan for collaborative stakeholder workshops, review public health research, and set appropriate goals for the construction or modernization project.

- **Health Charrette Guide.** A guidance tool to help built environment project teams prepare for and host a visionary and planning meeting to discuss the health and well-being goals and desired outcomes of a project. Located within Workshops Guide.

Research Anthology of Health-Promoting Building Strategies. A resource intended to support project the design and construction of projects that reflect proven health strategies. The anthology is broken down into eight key strategies, ranging from indoor air quality to active design. For each strategy area, design metrics and health outcomes are explained.

LEED & Health Credit Guide. A guidance tool providing information on the relationship between health & well-being and the credits available in the LEED v4 and v4.1 rating systems. The tool also identifies gaps in the credit library and potential strategies for other types of design features related to health and equity.

PLAN TO MONITOR: Develop A Plan to Monitor Health Outcomes

Monitoring Outcomes Guide. A guidance tool to help the Health Process Coordinator, health partners, and relevant stakeholders draft a plan to measure and observe the impacts that their school project health and well-being strategies have on the school population throughout the project life cycle.

Getting Started Guide: Using Arc in PreK-12 Schools. A guidance tool to aid in performance tracking and metrics, this guide gives districts an overview of the Arc platform and assists teams through project setup, data management and connecting sustainability lessons back to the classroom. .

Additional Resources:

DCPS Health Process Case Study. This case study features D.C. Public Schools, the first PreK-12 school system to demonstrate its portfolio-wide commitment to health promotion through certification with the LEED Health Process pilot credit. The collaboration between DCPS and The Green Health Partnership inspired the creation of this guidance document.

2021 State of Our Schools Report: America's PK-12 Public School Facilities. This report from the International WELL Building Institute (IWBI) and the National Council on School Facilities analyzes data on the funding of U.S. PK-12 public school facilities and draws attention to disparities in funding efforts.

Center for Green Schools IAQ Fact Sheet Series. A series of fact IAQ fact sheets (including ventilation, HVAC filtration, in-room air cleaners, and germicidal UV) designed to help people without a technical background understand indoor air quality so that they can make important decisions for their schools.

Mariposa Healthy Living Toolkit. This toolkit is an evidence-based guide to integrate health into real estate, developed by Mithun. The toolkit translates public health research and methods into an accessible, integrated process for developers and designers to baseline indicators, prioritize, and implement project strategies for well-being.

Inclusive Healthy Places Framework. This framework from the Gehl Institute (with support by the Robert Wood Johnson Foundation) serves as a guide to promoting inclusion and health in a variety of publicly accessible outdoor spaces.



Equity Lens Resources:

- [Racial Equity Impact Assessment and Racial Justice Organizational Assessment Tools - Consumer Health Foundation](#)
- [Racial Equity and Social Justice Lens - Portland Public Schools](#)
- [How to Advance Equity Through Health Impact Assessments - SOPHIA](#)
- [Healthy Communities Initiative Equity Checklist - Jay Pitter Placemaking](#)
- [The Community Engagement Guide for Sustainable Communities - PolicyLink and the Kirwan Institute](#)
- [Comprehensive Community Needs Assessment Tool - Community Action Partnership's Data Hub](#)
- [Community Engagement - World Health Organization](#)
- [Resource: Engaging Community - AIA](#)
- [EJScreen - U.S. Environmental Protection Agency](#)
- [Land Justice Guide - Resource Generation](#)
- [Community Liaison Framework Quick Guide - Urban Health Partnerships](#)
- [LEED Project Team Checklist for Social Impact - U.S. Green Building Council Social Equity Working Group](#)
- [Introduction to equityXdesign - Equity Meets Design](#)
- [Resource: Equitable Development Frameworks: An Introduction and Comparison for Architects - AIA](#)
- [SEED Evaluator 4.0 - Social Economic Environmental Design Network \(SEED Network\)](#)
- [LEED Pilot Credit: Social Equity Within the Operations and Maintenance Staff - U.S. Green Building Council](#)

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The Center for Green Schools is a global leader in advancing green schools and providing schools and school districts with what they need to create sustainable, healthy, resilient, and equitable learning environments. We believe that all students deserve to attend sustainable schools that enhance their health and wellness, prepare them for green careers, and support a thriving planet. To advance green schools, the Center supports and trains those implementing sustainability within school systems, through professional development, peer networks, research, and advocacy.

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References

Hood CM, Gennuso KP, Swain GR, Catlin BB. County Health Rankings: Relationships Between Determinant Factors and Health Outcomes. *American Journal of Preventive Medicine*. 2016 Feb;50(2):129-35.

Ishizaki, E, Worden, K, et al. (2021). Centering Health Equity: An open-source, beta action framework for built environment projects. Mithun and Green Health Partnership. Available from: <https://www.centeringequity.org>

Jackson RJ, Dannenberg AI, Frumkin H. Health and the built environment: 10 years after. *American Journal of Public Health*. September 2013;103(9):1542-1544.

McAlistar S. Why community engagement matters in school turnaround. *Voices in Urban Education*. Win-Spr 2013; EJ1046328.

Worden K, Hazer M, Pyke C, Trowbridge M. Using LEED green rating systems to promote population health. *Building and Environment*. November 2019; 106550.

Certification Appendix

This Certification Appendix is intended for project teams seeking to formalize their commitment to health and well-being by certifying with the [LEED Integrative Process for Health Promotion](#) (LEED Health Process) pilot credit in LEED v4 or the [Integrative Process](#) credit in LEED v4.1. The purpose of this appendix is to map LEED Health Process steps within this document to the formal steps of the pilot credit used to certify and to help teams navigate the [pilot credit resources on USGBC.org](#).

Below are the steps of the LEED Health Process with their accompanying Integrative Process for Health Promotion pilot credit steps:

Getting Started: School District Health Planning

- Step 0 - Making the Case for the LEED Health Process in Schools

Partner for Health: Enlist School District Health Partners

- Step 1 - Team with a Public Health Partner

Engage Communities: Identify Community Needs and Goals

- Step 2 - Identify the Communities
- Step 3 - Conduct Preliminary Research and Analysis

Take Action: Prioritize & Implement Health and Well-Being Strategies

- Step 4 - Convene a Goal-Setting Workshop
- Step 5 - Evaluate Possible Health Strategies

Plan to Monitor: Develop a Plan to Monitor Health Outcomes

- Step 6 - Document How Analysis Informed Design and Building
- Step 7 - Develop a Monitoring and Evaluation Plan

Several resources are available on the pilot credit page to assist project teams with the documentation requirements for the LEED Health Process. Teams may find that documenting progress as decisions are made and as workshops are concluded is beneficial. Included in the list below is [Worksheet 1](#) and [Worksheet 2](#) - GHP resources that help facilitate workshops - and official pilot credit documentation resources from USGBC.org. Project teams may submit alternative forms or formats of documentation (narrative or otherwise) as long as the information provided is present and clear.

- [LEED Health Process Worksheet 1 and Worksheet 2](#) (located in the guide appendix)
- [LEED Health Process Pilot Credit Documentation \(Excel\)](#)
- [LEED Health Process Pilot Credit Documentation \(Word\)](#)

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Social Determinants of Health For Real Estate

Applying SDOH Principles to Real Estate Practice

Social determinants of health (SDOH) are the conditions in the environments in which people are born, live, learn, work, play, worship and age that have a major impact on health, well-being and quality of life (U.S. Department of Health and Human Services, 2020). SDOH are referenced frequently throughout public health and equity research. Because clinical care accounts for a relatively small portion of health outcomes - about 20% according to studies conducted in the United States - practitioners who have the ability to influence the remaining determinants of health should be aware of what they are and how to promote them actively throughout their work (Magnan, 2017).

SDOH typically are grouped into five categories: economic stability, education access and quality, health care access and quality, social and community context and neighborhood and built environment. While addressing each of these categories is important to promote human health and well-being holistically, real estate practitioners have the most influence over the neighborhood and built environment and social and community context categories.

Economic Stability	Economic growth, job opportunities, wealth accumulation, secure employment, employment benefits, and meaningful work.
Education Access and Quality	Educational opportunities for everyone, access to quality public education and health, digital and financial literacy.
Health Care Access and Quality	Access to quality health care services for preventative care and for treatment of chronic illnesses.
Social and Community Context	Public and personal safety, strong community relationships, equitable opportunities for community building and connection.
Neighborhood and Built Environment	Quality and affordable housing and transportation, healthy and safe homes, recreation spaces and workplaces, internet connectivity, access to healthy foods and safe parks and green spaces.

Resources for Social Determinants of Health in Real Estate:

Several resources are available to help real estate practitioners better understand the social determinants of health and how to apply them throughout their work:

- **Centering Health Equity Conceptual Framework:** Influenced by the social determinants of health, the Centering Health Equity conceptual framework aims to highlight how projects in multi-sector real estate, infrastructure, design and planning fields mediate access to fundamental life-giving resources (like shelter, water, movement, air and food) for people who interface with the assets that they develop. The framework maps the influence, power and privilege held by different groups of decision-makers across the industry and highlights how projects may promote customer or user health, as well as broader community health equity.
- **BARHII Framework:** Bay Area Regional Health Inequities Initiative (BARHII) created a conceptual framework to illustrate the connection between social inequalities and health. The framework focuses the bulk of its attention on upstream efforts to promote health, well-being and equity, including institutional inequities like corporations and businesses and our physical, social and work environments.
- **RWJF Culture of Health:** The Robert Wood Johnson Foundation's Culture of Health framework is intended to help provide the nation with a fair and just opportunity for health, well-being and equity. Informed by rigorous research on the social determinants of health and other factors which affect health, it recognizes that many ways exist to build a Culture of Health through individual, community and organizational efforts. The built environment and social and economic environment, both heavily influenced by the real estate industry, are core tenets of this framework.
- **Healthy People Campaign:** The Healthy People Campaign is an initiative from the Office of Disease Prevention and Health Promotion (ODPHP) that provides 10-year national objectives for improving the health of all Americans. These objectives are rooted in the social determinants of health and include achieving health equity, eliminating disparities and improving the health of all groups. The real estate sector may play a part in the Healthy People Campaign by helping to create social and physical environments that promote good health for all.

With a more holistic understanding of the factors that influence health, well-being and equity, real estate practitioners may create projects and portfolios that have lasting, positive effects on the communities and people who will interact with the spaces on a daily basis.

References:

Magnan S. Social determinants of health 101 for health care: five plus five. National Academy of Medicine. October 2017. Available from: <https://nam.edu/social-determinants-of-health-101-for-health-care-five-plus-five/>

U.S. Department of Health and Human Services. Healthy People 2030: Social determinants of health. Office of Disease Prevention and Health Promotion. 2020. Available from: <https://health.gov/healthypeople/objectives-and-data/social-determinants-health>

LEED Health Process

Community Health Profile Guide



This Community Health Profile Guide contains step-by-step procedural recommendations to prepare for and facilitate community needs assessments within school construction and modernization projects. This guide is a tool to help the Health Process Coordinator and the full project team prepare for and facilitate a community needs assessment, community engagement and school observations to develop a community profile.

This guide is developed primarily with the school district Health Process Coordinator in mind, the individual(s) who leads health-promoting strategies and decision-making conversations with the rest of the project team, design team, developers, consultants and other stakeholders.

Importance of Community Health Profiles

As described in the *Roadmap to the LEED Health Process*, the goal of implementing the LEED Health Process pilot credit in school construction and modernization projects is to leverage a school's approach to green building to improve sustainability, health, well-being and social equity for the school community. When implementing the process at the portfolio scale, the Health Process Coordinator should keep in mind that each school community is unique and presents equally unique opportunities to improve population health and well-being. A community needs assessment will help the team develop a school-specific approach to promoting health through school facility design, construction and operation. During this step, the Health Process Coordinator and team members will gather public health and social equity data and information on the population affected by the construction, renovation or modernization project.

Preparing for and Executing a Community Health Profile

1. **Ask district health partners about existing school community health information.**
 - A. Reach out to the school's health staff or principal to ask if demographic reports, school profiles, student survey results and other health and education service reports are available from the school.
2. **Develop a set of questions regarding baseline school and community health.**
 - B. For school community questions not answered by researching available health data, prepare questions to ask school officials.
 - Some of this information may include education and health services provided, extracurricular activities, and community services, among others.
 - These questions help establish a baseline for the health and well-being conditions within a school so that modernization or renovation may create or improve upon health and well-being resources and services.
 - Use these questions to guide your approach to primary and secondary data collection.

3. Conduct primary and secondary data collection.

- A. Primary data collection: Gather new data directly from the school community.
 - This may look like school observations, surveys, direct community engagement either in person or virtual town halls, etc.
 - Use the school observation and community survey resources at the end of this guide to inform your approach to primary data collection.
- B. Secondary data collection: Explore readily accessible, existing, and open source community health data.
 - While very valuable information may come directly from the district, community health data is often also publicly accessible. Try using some of the external resources provided at the end of this guide to learn more about the school and surrounding neighborhoods.
 - Some suggested preliminary community information for the students, teachers and neighborhood description in the community health profile includes school district demographic information, survey reports, school profiles, etc.

4. Use information gathered to develop a community health profile.

- A. The Community Health Profile Assessment form included at the end of this guide can support data collection and documentation for the school project. Organizing data and insights into a community health profile will help project teams assess the most pressing health and well-being needs of the community and prioritize design and programmatic strategies to address those needs. Reference the community health profile in workshops and during goal setting to define district values and support data-informed design decisions.

Primary Data Collection

The following sections provide example questions for different types of primary data collection. Project teams may use these examples as a guide or develop new questions and methods that suit the needs of their project.

School Observation

1. **Exterior:** Take time to observe features of the school building exterior and surrounding neighborhood that may have an impact on health and well-being.
 - A. Such opportunities may help to define community goals and strategies for the project. Think broadly and inclusively! Examples include:
 - School ground landscaping, outdoor recreational areas, staff parking, drop off / pick up locations, crosswalks, street connectivity, access to sidewalks, housing, nearby retail, overall strengths and limitations of the community surroundings.
2. **Interior:** As you walk through the school building, take note of the important health features already in the space and the limitations of each space.
 - A. Observe and reflect on how each specific school environment affects classroom functionality, student learning and engagement and building occupant health, well-being, behaviors and abilities.

- B. Suggested questions to reflect on and evaluate:
 - How do you feel as you walk into the school for the first time?
 - Are there already environmental design features integrated throughout the school that positively impact student success and occupant satisfaction?
 - Does each school space have natural lighting? (Classrooms, library, cafeteria, gymnasium, etc.)
 - How is the air flow in each school space? Do you sense staleness in the air as you walk through the school?
 - Are mental health promotion signs in the school?
 - Are health services locations clearly indicated?
 - Are “safe zones” already present in the school?
 - C. In addition to qualitative observations, explore the feasibility of conducting quantitative observations to assess air and water quality as well as daylight and noise levels.
3. **Students and Staff:** Observe and track student, teacher, and staff interaction within the school spaces.
 - A. Consider how school occupants interact in the spaces and with each other.
 - B. Suggested questions to consider:
 - How do students and teachers interact in the spaces?
 - Do the students interact positively or negatively with each other within the school space?
 - Is bullying evident?
 - Is positive student and teacher engagement seen within the school?
 - Does the school provide fun, open spaces for students to interact?
 - How do the spaces meet school occupant needs?

Direct Community Engagement

1. **School Health Staff:** Facilitate a discussion with school nurses, physical education instructors, nutritionists, behavioral health specialists and any other health stakeholders about their perspectives on student health in the school community.
 - A. Gather information on the top health and well-being priorities in the school community. If school health staff aren’t available in person, contact them via email.
 - B. Suggested questions for internal listening feedback:
 - What are the top health and well-being issues seen at school?
 - Have these problems increased during your time at this school?
 - In your opinion, what is the most important health and well-being issue?
 - In your opinion, what could we do better to reduce these issues in your school?
2. **School Administrators:** Facilitate a discussion with school administrators about their perspectives on student health in the school community.
 - A. Gather feedback from the school administration on student, parental and community engagement and top health and well-being issues in the school community.
 - B. Suggested questions to consider:
 - In your opinion, what is student engagement like at this school?
 - How would you describe the current state of engagement with the community surrounding the school building?
 - How would you describe the current state of parental engagement in your school community?
 - In your opinion, what do you think are the top health and well-being issues at your school?

- Have you had issues with bullying or misconduct?
 - In your opinion, what do you think we should focus on for the school building construction and modernization?
 - Have you had any problems with community, student and/or parental engagement developed as a result of this school construction or modernization project?
 - How would you describe the strengths and limitations of your current school building and community?
1. **School Teaching Staff:** Facilitate a discussion with school teachers about their perspective on building occupant health in the school community.
 - A. Gather feedback from a school staff's perspective on the school community, engagement and health and well-being goals that should be focused on in the building design and construction.
 - B. Suggested questions to consider:
 - In your opinion, how would you describe the overall student engagement in your classroom?
 - Have you had issues with bullying or misconduct?
 - How much parent participation occurs at this school?
 - Have you experienced any setbacks during this school construction and/or modernization? (Based on both student and teacher perspective).
 - In your opinion, what do you think are the top health and well-being issues seen at your school? (Examples include: mental health, physical health, learning difficulties, access to health and education services).
 - In your opinion, what do you think we should focus on for the school building construction and modernization?

Community Surveys

Consider developing community pre- and post-occupancy health and well-being surveys for school students and staff. Community surveys help project teams develop a better overall public health assessment of the occupants' perspective and perceptions about their own community.

1. **Development:** The surveys should be unique to each population that they are intended to serve. Depending on the school population, surveys could be designed for elementary students, middle school students, high school students and staff members.
 - A. The survey questions should be simple and direct. They should be based on the top public health and equity issues identified in workshops and the conditions seen during school observations
 - B. Example survey questions and additional guidance are available in the [Monitoring Outcomes Guide](#) and throughout the main text of the *Roadmap to the LEED Health Process in Green Schools*.
2. **Distribution:** If possible, distribute pre-occupancy surveys while students and staff remain in their original school environments. Information gathered by a survey deployed at this stage can both be used to inform project design and as a baseline for monitoring impact of the new school facility. During the evaluation stage after the project is completed, surveys should be readministered to help determine the success of the chosen health strategies and inform ongoing operations.
 - A. Any surveys being distributed to both students and staff will require approval from school officials, so be sure to work with school representatives to develop the surveys and administer them in the most time- and cost-effective way.

Resources to Complete a Community Needs Assessment:

Monitoring Outcomes Guide. Contains additional information on school surveys. A guidance tool to help the Health Process Coordinator and team create a draft plan to measure and observe the impact that their school project health and well-being strategies have on the population throughout the project life cycle.

Child Opportunity Index. This tool from datadiversitykids.org at Brandeis University's Institute for Child, Youth and Family Policy measures and maps the quality of resources and conditions that matter for healthy development in children in the neighborhoods in which they live. Project teams may use this resource to spark conversations about unequal access to opportunity and to spur actions to increase equity.

Gehl Inclusive Healthy Places Framework. A particularly useful tool for school observations, this framework introduces tools for evaluating and creating public spaces that support health equity.

PolicyMap. This GIS tool includes demographic, health, economic, education and quality of life data available to view on a map of your community. The tool helps schools identify the challenges facing their communities and strategically target goals to address those challenges.

Community Tool Box: Addressing Social Determinants of Health in Your Community. A helpful website that covers basic public health definitions, community, concepts and ways to take action. Step-by-step guidance to increase understanding of community needs and assets.

Enterprise Opportunity360. A data-driven tool that provides holistic insights into your neighborhood. Provides census-tract ranks on key measures of opportunity, including affordable housing, education, access to jobs, transportation and healthy food, safe, green spaces for kids to play and environmental health indicators.

IES > National Center for Education Statistics (NCES). A helpful website that covers public school details, school profile links and school enrollment characteristics by grade, race and ethnicity and gender based on the National Center for Education Statistics database reports.



Example School Community Health Profile:

Students	
Demographics: 1. Age, Education Levels, Racial Distribution, Income Levels	
Percent Economically Disadvantaged:	
Survey Report Results: 1. Student Satisfaction 2. Student Expectations 3. Sense of Belonging 4. Other Study Results	
Student Progress Reports:	
Available Student Services: 1. Before or After School (Y or N) 2. Extra Curriculars (provided by school)	
Teachers	
Retention Rate:	
Demographics (if available):	
Feedback:	
Neighborhood Surroundings	
Neighborhood Description: 1. Demographics 2. Income Level	
Street / Sidewalks:	
Teacher Parking:	
Drop Off / Pick Up Locations:	
Overall Limitations:	

Community Engagement	
Student Engagement:	
Parental Engagement:	
Strengths:	
Limitations:	
School Visit: (Descriptions and Observations of Space)	
Entrance:	
Lobby:	
Auditorium:	
Classrooms:	
Gymnasiums / Active Spaces:	
Cafeteria:	
Library:	
Nurse's Suite:	
Bathrooms:	
Student Observations	
How Spaces Meet Student Needs:	
Student Interactions: <ol style="list-style-type: none"> 1. How do the students interact within the spaces? 2. How do the students interact with one another? 	

Internal Listening Feedback	
Nurse Feedback: 1. Top health problems at the school.	
Principal Feedback:	
Teacher Feedback:	
Additional Coordinator Feedback:	

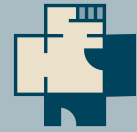
This Community Health Profile Guide is part of the series “Green Schools for Health: A District’s Roadmap to the LEED Health Process.” To find the main guidance document, or to access the other supplemental guides, visit this [webpage](#).

Who We Are: The Green Health Partnership (GHP) is an applied research initiative between the University of Virginia School of Medicine and USGBC, funded by the Robert Wood Johnson Foundation (RWJF). The LEED Health Process was developed by the GHP in partnership with Enterprise Green Communities and the Health Impact Project, a collaboration of RWJF and the Pew Charitable Trusts.

Note: The creation of this resource was supported by an academic grant. It is intended for open source use.

LEED Health Process

Workshops Guide



This guidance document intends to reveal the health and well-being benefits of conducting collaborative workshop sessions with stakeholders involved in their project's implementation of the Integrative Process for Health Promotion (LEED Health Process) pilot credit. Workshop sessions can and should happen at multiple stages throughout the LEED Health Process credit implementation. Workshops are being introduced at this phase so that the Health Process Coordinator may plan and prepare for sessions before they are set to take place.

Generally three different options of health promotion workshops are available - those internal to the district and school facilities teams, goal-setting workshops and design-oriented workshops that take place between the district and the design team. Recognizing that each school project is unique, you may add to or combine any of these workshop sessions to suit the needs of your team.

Workshops Guide Importance

Workshop sessions help school districts and facilities teams create a platform for multi-sector stakeholder conversations to discuss health strategies throughout the construction, renovation or modernization process. These sessions are essential components of the LEED Health Process and help set apart projects from those following a standard practice. Collaborations are an excellent opportunity for professionals from diverse backgrounds to review their health and well-being goals, values and principles for the project.

Project teams will most likely maximize the health-promoting potential of workshops by hosting different collaborations at multiple stages of the LEED Health Process. Yet, depending on the team's capacity it is important to note that workshops - internal, goal-setting or design-oriented - may be completed in one combined session if necessary.

Enlist School District Health Partners - Internal Workshops

Hosting a workshop that engages other district-level health-oriented stakeholders is an excellent place to kick-start the conversation about health and well-being. Activities that take place during the workshop help stakeholders become familiar with the health promotion process for school projects, the needs of the community and the ways that the school project may impact health and well-being. School districts have the advantage of existing health expertise within their own organization. Health services, nursing, food and nutrition, physical education and counseling professionals will have a familiarity with the health needs of the students and may become highly valuable health experts and resources throughout the LEED Health Process. Districts also may look to recruit stakeholders who may not be obviously health-oriented - many important opinions regarding the health of the school community may come from nontraditional health professions, including local community-based organizations, community representatives or social workers.

***Note:** Health Process Coordinators may set all these collaborations as traditional workshops or as a more goal-oriented health and well-being charrette. The example health charrette guide included at the end of this guide includes detailed information and sample questions about the best ways to structure and implement a health charrette.

Identify Community Needs and Goals - Goal-Setting Workshops

Goal-setting workshops - best positioned during the *Identifying Community Needs and Goals* step of the process - should include the design team, school team and health-oriented stakeholders. Participants should meet to review the needs of the school community and prioritize the most pressing health goals for their project. This workshop could be set up as a traditional meeting (preparation questions and conversation structure is available below) or teams may find that a **health and well-being charrette** (example included at the end of this guide) better suits their needs. Both approaches are equally valuable. Before the goal-setting workshop takes place, the Health Process Coordinator may send out the following prep questions to all workshop participants to prepare them for discussion.

Prep Questions:

1. How do you define health and well-being?
 1. How might the definition change specific to your school community?
2. How may design support health and well-being goals and values?
3. What metrics and indicators may we track to assess the impact of our chosen designs?

Depending on the number of stakeholders who attend the goal setting workshop, stakeholders should break into small groups to allow everyone the opportunity to voice their opinion, then re-converge to share ideas. When all team members join back together, each project team should review discussion questions and work together to answer challenge questions for the school project.

Optional Discussion Questions: (in small groups)

1. What are the priority health needs and desires for the children and staff of this school?
2. What is the primary health promotion opportunity for this school?
3. How will this school project positively impact the health and well-being of students, staff and the surrounding community.

Optional Challenge Questions: (as a whole)

1. Integration - How does your team's vision for targeting health promotion in this school project integrate with the school's concurrent sustainability and education goals?
2. Portfolio - How do the health promotion goals, strategies and focus of this single project integrate with and support the district-wide goals for health promotion at a portfolio level?
3. Partners - Which internal and external partners may help advance the health and well-being goals and opportunities in this school project?



Take Action - Health Promotion and Design Workshops

The Health Process Coordinator first must set appropriate health and well-being goals for the school construction, renovation or modernization project. The coordinator then must collaborate with the design team to cover existing health needs, planned design features and additional built environment feature recommendations that should be considered to reduce the health impacts surrounding the school community. During this workshop and the selection of healthy and equitable design strategies, stakeholders are encouraged to think comprehensively about the factors that impact equity, health and well-being, including how the design (and/or programming) may influence behavior and the social determinants of health.

Prep Questions:

1. How do you think your health and well-being is impacted by certain design features of your home or place of work?
2. Based on the data gathered, what are the top public health issues impacting the school community?
3. What strategies for health promotion and design exist within the project’s designated certification method(s)?

Above is a set of prep questions for the groups participating in the workshop. The Health Process Coordinator, health experts, design teams and community stakeholders will be able to use this workshop to collaborate and discuss how the design of the school will and can promote health, well-being and equity through built environment features. Use the provided **Worksheet 1** and **Worksheet 2** to brainstorm both “software” and “hardware” strategies to promote health, and the **Influence & Decision Mapping** graphic (included in the resources section) as an additional resource.

<p>“SOFTWARE”</p> <p>What health promotion programming is planned at the school?</p> 	<p>TARGET POPULATION</p>	<p>“HARDWARE”</p> <p>What school design features would support this programming? What “standard” design features might inhibit this programming?</p> 



Software

Programmatic strategies planned for a school based on the specific health and well-being needs of the community. For example, a school-wide initiative to promote drinking water.



Hardware strategies

The design + construction strategies implemented to support an accompanying programmatic strategy. For example, drinking fountains strategically placed outside of gymnasiums or in highly-trafficked hallways.

***Note:** If teams are participating in these workshops remotely, platforms like Google Jamboard and Miro have been helpful to facilitate collaboration discussion. Consider using Worksheet 2 as a template. Divide into teams and use sticky notes to brainstorm software and hardware strategies for promoting health within your school project.

Taking the time to collaborate with health experts, stakeholders and members of the school community throughout the project timeline can have a significant impact on the overall success of a project. Workshops provide an excellent opportunity for professionals from diverse backgrounds to review their health and well-being goals, values and principles for the project. Engaging a variety of perspectives also may help school district teams and staff members highlight their unique experiences within the school to inform conversations on key community health needs.

Additional Resources for Workshops:

Worksheet 1 (Included in Appendix). A collaborative document to be used in community needs and goals setting workshops that helps teams establish key opportunities for school health promotion. The worksheet also may help district facilities collaborate and build relationships with other health-oriented stakeholders and teams.

Worksheet 2 (Included in Appendix). A collaborative document to be used in design workshops that frames health promotion into “software” and “hardware” strategies or programmatic and physical design strategies used to address specific health and well-being goals.

DCPS Design Meeting Example. A sample powerpoint agenda and discussion questions of the Health Promotion and Design Workshop at District of Columbia Public Schools (DCPS).

Example Health Charrette Guide

This Health Charrette Guide contains step-by-step procedural recommendations to prepare for and facilitate a health charrette. The guidance tool is designed to help built environment project teams prepare for and host a visionary and planning meeting to discuss the health and well-being goals and desired outcomes of a project.

This guide is developed primarily with built environment practitioners in mind, particularly architects and designers who lead decision-making conversations with clients, project developers, consultants and contractors. The ideal audience for the health and well-being charrette is the Health Process Coordinator and all other relevant health and well-being stakeholders involved in a construction or modernization project.

Preparing for a Health Charrette (~ 60 min)

1. Review health and well-being goals, values and principles (if available and outlined from the onset of the project).
 1. If not available, ensure adequate time in the agenda of the health charrette to assist the project clients(s) in identifying health and well-being goals (recommendation: 15-20 minutes).
 2. Consider incorporating an Outcomes Based Design approach at the start of the charrette as an effective tool to align multi-sector collaboration toward a common purpose.
2. Engage health and well-being stakeholders.
 1. An opportunity to connect and engage with stakeholders who can help define health and well-being goals and strategies for the project. Think broadly and inclusively! Stakeholders may come from nontraditional health backgrounds.
 2. Examples include:
 1. Public health practitioner, local health department or public health organization (health data, community-based research methods).
 2. Community-based organizations (local neighborhood conditions, organizing and advocacy efforts, lived experience of health and well-being issues).
 3. Resident Service Providers (for multi-family and affordable housing, could include social workers, on-site tenant support staff).
 4. School facilities managers, nurses, nutritionists and physical education professionals.
 5. University/academic, schools of public health and beyond (published literature, ongoing research and graduate student/intern opportunities).
 6. Philanthropy/foundations (RFPs and other grant opportunities).
 7. Air quality management district.
 8. Building occupants or representatives from the target population.
3. Suggested questions for stakeholder engagement:
 1. How do you define health and well-being? How are you working to improve both?
 2. What motivates you to improve health and well-being for the building occupants? (Ex: reduced absenteeism, higher lease rates, part of your mission).
 3. Do you see a connection between the built environment and health in your work? How would you describe that connection?

4. What role could you play on a built environment project team to influence design and construction strategies to maximize health and well-being impact?
3. Research health and well-being data sources.
 1. An important step to become knowledgeable about public data sources and what health conditions are most prevalent/inequitable in the community of your project.
 2. Examples include: local health department, community-based organizations, County Health Rankings and Roadmaps, Enterprise Opportunity360, 500 Cities, City Health Dashboard, on-site resident service providers and management (or equivalent for target population - i.e. HR, student services, etc.), Community Health Needs Assessments from local hospitals.
 3. Also consider ways of understanding the unique local health needs and desires of people potentially impacted by the project (e.g. PhotoVoice methods, mapping exercises, small scale informal surveys/focus groups).
4. Research health and well-being building rating certification systems and available health-focused design and operation strategies.
 1. Such strategies may be found in a variety of tools and resources including LEED Integrated Process for Health Promotion (LEED Health Process), Green Point Rated (California), Enterprise Green Communities (multi-family housing), Fitwel, WELL Building Standard, the Building Healthy Places Toolkit and the Mariposa Healthy Living Initiative.
5. Develop goals, invitation lists, agenda and talking points for health charrette.
 1. See sample agenda in health charrette meeting outline below.
6. Decide if the health charrette should be a stand-alone meeting or integrated into green building and sustainability charrette.
 1. Questions to consider:
 1. Does a holistic health and well-being frame encompass the green building and sustainability goals?
 2. Are the stakeholders for the sustainability and health charrettes similar?
 3. How much time is needed for the charrettes?
7. Consider preparing a general background document (or brief presentation) for charrette stakeholders as a primer.
 1. The document could include literature linking the built environment, health determinants and health behaviors/outcomes; description of available health-focused design and operation strategies; and resources specific to potentially impacted vulnerable populations - children, socioeconomically disadvantaged, elderly, etc.
 2. Recommendations:
 1. [Neighborhood Adversity, Child Health, and the Role for Community Development](#) - Pediatrics
 2. [Mapping Life Expectancy](#) - Virginia Commonwealth University Center on Society and Health
 3. [Inclusive Healthy Places](#) - Gehl Institute
 4. [Assembly: Civic Design Guidelines](#) - Center for Active Design
 5. [Outcomes Based Design Approach*](#) by Rose Architectural Fellows, Enterprise Community Partners, Health x Design and ISA Architects
 6. [Opportunity360](#) - Enterprise Community Partners

Facilitating a Health Charrette (~ 60-90 min)

Note: The following steps serve as a procedural guide but also may be a sample agenda for facilitating your own meeting:

1. Introduction/Opening.
 1. How do we (as individuals and as a project team) define health and well-being?
 2. What populations are impacted by this project?
 3. How do we think about health and well-being promotion in the context of this project?
 4. What story do we want to tell about this project and its impact?
2. Review/develop health and well-being goals, values, principles.
 1. Review if goals, values, principles are available from the response to the RFP and onset of the project; develop as a group if not.
 2. Compare the goals and values with the responses from introduction/opening.
3. Consider designs for health and well-being promotion.
 1. How may our design support our health and well-being goals and values?
 2. What design features do we have already and what can be added?
4. Develop performance plan (Note: Concurrent or just prior to developing a plan, an Outcomes Based Design approach could be useful).
 1. If your project team has outlined concrete goals, what are metrics and indicators that we can track to tell the story of impact?
 1. Note: Knowledge of health and well-being data sources from preparation may be useful here.
 2. How will we stay true to our health and well-being values and principles? Are there process measures or questions during the project timeline that we should ask ourselves?
 1. Ex 1: Knowing more about the health and well-being context of the neighborhood and impacted populations, are there ways to enhance our community engagement efforts?
 2. Ex 2: If we undergo changes in the commercial tenants, can our health and well-being values guide our selection process?
5. Review credits and incentives.
 1. Are there building certification systems that support our goals and provide additional resources/opportunity?
 1. Note: Knowledge of different rating systems and strategies from preparation may be useful here.
 2. If using a building certification system, consider whether the meeting agenda will include a credit-by-credit evaluation of each strategy for the project or whether a more high-level approach to health and wellness strategies will be taken.

6. Health and well-being stakeholders.
 1. Do we have the appropriate stakeholders in the room?
 2. From our conversation today, should we engage others?
7. Review and conclusion.
 1. Review goals and values.
 2. Review design decisions and considerations.

* Outcomes-Based Design

An outcomes-based design (OBD) approach (also called results-based or performance-based) is applied in fields ranging from business management to education to public health and social services. OBD defines the specific population focus, expected benefits, time frame, strategies and indicators that will be used to demonstrate the project's impact over time. In the case of affordable housing, an outcomes-based design approach provides guidance for designers and developers to improve social, health, ecological and economic wellbeing of communities.

Recommended Steps to compliment the OPR and BOD:

1. Set Expectations. Establish clear goals and objectives as a team, use this resource as an overarching project guide.
2. Plan for Impact. Define factors that predict population-level change; map the range of design options that may be used and determine how impacts will be measured when the building is placed in service.
3. Define Terms. Establish a shared language across disciplines and understand key terms used by different sectors to allow effective communication.
4. Define what is important. Define a framework that can be used to prioritize strategies when in conflict. I.e. are strategies that provide benefits for multiple populations ranked higher - or will a specific vulnerable population be prioritized? Are priorities aligned with partner organizations to increase the importance of certain strategies? Developing a set framework can help assess multiple good ideas efficiently.
5. Prioritize Resources. Assess community priority needs and tailor design strategies and investment to maximize impact.
6. Measure Success. Track project metrics and articulate the project's benefits to the community, decision makers, project partners and potential funders.
7. Learn + Share. Back up your claims with measured data that can be applied to future projects; accountability is essential to an organized framework approach.

An OBD approach provides a structured framework for organizing and communicating a thorough design process to diverse audiences and project team members. OBD is intended to help clients, designers, developers, funders, policy makers, experts and community members work together to (1) discover the local character, needs, opportunities and challenges of people and place; (2) design site-specific interventions that seed maximum impact; and (3) measure and track population-level outcomes as a result of the design.

This method works in conjunction with existing pre-development design tools, plugging in team expertise and up-to-date research when appropriate to optimize resources, functionally serving as a project roadmap and translation guide.

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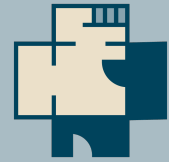
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Note: The creation of this resource was supported by an academic grant. It is intended for open source use.

LEED Health Process

LEED and Health Credit Guide



Human health is a longstanding value of the green building movement. Green buildings protect health and well-being in the near term, while preserving resources and protecting the environment for human benefit in the long term. By intentionally deploying green strategies, building owners and industry professionals can simultaneously promote health at a variety of population scales. This translates into superior environments for occupants, safe and healthy sites for construction workers, reduced toxic exposure throughout the supply chain, improved health in surrounding communities and climate change mitigation that benefits global populations.

This LEED & Health Credit Guide highlights health-related credits within LEED for Building Design and Construction (BD+C) v4 and v4.1. This guidance tool is intended to help owners, Health Process Coordinators, health partners and design teams identify and utilize health and well-being-related credits in the LEED library during application of the [LEED Health Process](#).

While LEED contains strategies that impact health at multiple population scales, this guide focuses specifically on credits related to occupant and community health. Because health and environmental strategies are deeply intertwined, project teams can build upon the health co-benefits of sustainability, resilience, and green strategies while also driving a specific focus on occupant and community health. This guide also identifies gaps in the LEED credit library and suggests health and well-being strategies from other rating systems that may fill the gaps. For a full analysis on the best practices for using LEED green rating systems to promote population health, see the report titled [Using LEED Green Rating Systems to Promote Population Health](#) in the resources section.

LEED Credit Library: Health, Well-Being, and Equity

The following table organizes LEED credits by population health goals. Please note, this list is not exhaustive of health and well-being-related goals or credits in the LEED library. [LEED pilot credits are included in this list in light blue text](#). In some cases, credits listed here have a variety of achievement pathways, only some of which are associated with health benefits. Table 2 lists those credits and provides tips on how to achieve the relevant health benefit. Work with your health partner(s) for a more holistic understanding of how the application of LEED credits and certification may impact health. Workshop sessions with relevant stakeholders, like design teams, will help schools generate a plan for choosing the appropriate credits for their project.

These credits build on health benefits associated with the following prerequisites:

- SS: Construction Activity Pollution Prevention
- SS (Schools and Healthcare): Environmental Site Assessment
- IEQ: Minimum Indoor Air Quality Performance
- IEQ: Environmental Tobacco Smoke Control
- IEQ (Schools): Minimum Acoustic Performance

Table 1. Existing LEED BD+C Credits and Health Goals

Health Goals	LEED BD+C v4 and v4.1 Credits and Pilot Credits (Category: Description)
<p>Promoting Health</p>	<p>IP: Integrative Process for Health Promotion IP (Healthcare): Integrative Project Planning and Design</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> Engaging future occupants (when possible) and designing the project to address established occupant health goals. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> Engaging members from the surrounding community and designing the project to address established community health goals.
<p>Social Equity</p>	<p>IP: Social Equity within the Project Team IP: Social Equity within the Community IP: Social Equity within the Supply Chain WE: All-Gender Restrooms MR: Legal Wood MR: Certified Multi-Attributable Products and Materials MR: Integrative Analysis of Building Materials MR: Material Ingredients Product Manufacturer Supply Chain Optimization MR: Timber Traceability IN: Inclusive Design</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> Providing spaces that “empower a diverse population by improving human performance, health, wellness, and social participation.” Providing restroom access for every building occupant. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> Encouraging use of materials with environmentally and socially preferable life-cycle impacts. Creating more equitable and supportive environments during project construction. <p>Impact on Supply Chain Health:</p> <ul style="list-style-type: none"> Maintaining social equity along the supply chain and for the community. Reducing risk of illegally sourced, harvested, or traded materials.
<p>Safety</p>	<p>IP: Safety First, Cleaning and Disinfecting Your Space IP: Safety First, Managing Indoor Air Quality during COVID-19 IP: Safety First, Building Water System Recommissioning IP: Safety First, Re-Enter Your Workspace IP: Safety First, Design for Indoor Air Quality and Infection Control IP: Prevention through Design WE: Integrated Project Water Reuse Strategy MR: Building Material Human Hazard & Exposure Assessment EQ: Lead Risk Reduction EQ: Ergonomics Approach for Computer Users</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> Reducing occupant exposure to potentially hazardous air quality, water quality, and materials. Reducing the opportunity for transmission of COVID-19 virus. Educating occupants and visitors on disease control importance and procedures. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> Reducing the opportunity for transmission of the COVID-19 virus in the community. Reducing hazard exposure for the community.

<p>Physical Activity</p>	<p>LT: High-Priority Site LT: Surrounding Density and Diverse Uses LT: Access to Quality Transit LT: Bicycle Facilities LT: Reduced Parking Footprint LT: Advanced Transportation Monitoring Systems SS: Open Space SS: Heat Island Reduction SS (Schools): Joint Use of Facilities SS: Walkable Project Site EQ: Design for Active Occupants SS: Heat Island Mitigation with Cool Walls</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Encouraging alternate methods of transportation. • New or converted spaces designated for physical activity. • Access to exterior open spaces. • Proximity to quality public transit. • Encouraging physical activity via: <ul style="list-style-type: none"> • Walkable commutes or monitoring transportation choices. • Interior design. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Contribute to a more pedestrian-friendly community by: <ul style="list-style-type: none"> • Reducing motor vehicle usage. • Reducing impacts of excessive heat. • Increasing community green space.
<p>Clean Air</p>	<p>LT: High-Priority Site LT: Access to Quality Transit LT: Bicycle Facilities LT: Reduced Parking Footprint LT: Electric Vehicles LT: Advanced Transportation Monitoring Systems SS: Heat Island Reduction SS: Solar Access to Green Space SS: Heat Island Mitigation with Cool Walls SS: Clean Construction EA: Alternative Energy Performance Metric EA: Energy Performance Metering Path EA: Community Contaminant Prevention - Airborne Releases MR: Material Ingredients MR: Building Material Human Hazard & Exposure Assessment EQ: Enhanced Indoor Air Quality Strategies EQ: Low Emitting Materials EQ: Indoor Air Quality Assessment EQ: Performance-Based Indoor Air Quality Design and Assessment EQ: ETS Control for Projects in Japan and Airport Projects with Security Restrictions.</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Reducing exposure to combustion byproducts. • Reducing hazardous exposure to airborne toxicants. • Limiting environmental tobacco smoke. <p>Impact on Community Health</p> <ul style="list-style-type: none"> • Reducing project's contribution to localized air pollution. • Minimizing the obstruction of sunlight and air contamination in public parks and green spaces. • Minimize the effect of heat islands, putting community health at risk.

<p>Healthy Eating and Clean Water</p>	<p>SS: Local Food Production WE: Optimize Process Water Use WE: Water Leak Detection and Monitoring WE: Integrated Project Water Reuse Strategy</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Provides access to healthy, local foods. • Provides access to safe and reliable drinking water. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Increasing community involvement in and education about food production. • Safe, efficient, and reliable access to water.
<p>Social Connection</p>	<p>LT: Surrounding Density and Diverse Uses SS: Open Space SS: Joint Use of Facilities SS: Walkable Project Site SS: Local Food Production EQ: Design for Active Occupants</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Site selection that encourages interaction with the surrounding community. • Providing spaces to encourage social interaction). • Encouraging social connection through physical activity and access to the outdoors. • Providing opportunity for connection through communal gardening. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Providing community access to exterior green spaces. • Facilitating community usage of interior spaces such as auditoriums, gyms. • Connecting the community via local gardening and food production.
<p>Stress Mitigation and Comfort</p>	<p>IP: Passive Survivability and Back-Up Power During Disruptions IP: Assessment and Planning for Resilience IP: Design for Enhanced Resilience SS: Site Development - Protect or Restore Habitats SS: Open Sites SS: Light Pollution Reduction SS: Joint Use of Facilities SS: Bird Collision Deterrence SS (Healthcare): Places of Respite WE: All-Gender Restrooms EA: Enhanced Commissioning EQ: Interior Lighting EQ: Daylight EQ: Quality Views EQ: Acoustic Performance EQ: Daylight for Nordic Projects EQ: Learning Controls for Thermal Comfort EQ: Enhanced Acoustical Performance - Exterior Noise Control EQ: Quality Views in Non-Regularly Occupied Spaces EQ: Daylight in Non-Regularly Occupied Spaces EQ: Designing with Nature, Biophilic Design for the Indoor Environment</p> <hr/> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Increasing access to nature for stress mitigation. • Designing for interior comfort. • Reducing stress by: <ul style="list-style-type: none"> • Maintaining comfortable IEQ conditions (light, noise control, temperature). • Ensuring safe conditions in the event of a natural disaster and power outages. • Helping occupants maintain circadian rhythms.

<p>Stress Mitigation and Comfort (cont.)</p>	<ul style="list-style-type: none"> • Helping occupants maintain circadian rhythms. • Minimizing outdoor distractions and preserving wildlife. • Connecting occupants to the outdoor environment. • Providing restroom access to every building occupant. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Increasing community access to nature for stress mitigation. • Reducing disruption to circadian rhythms associated with light trespass. • Building with a proactive plan for resilience in the event of natural disaster. • Reducing impact of environmental noise from building for the community.
<p>Resilience</p>	<p>IP: Assessment and Planning for Resilience IP: Design for Enhanced Resilience IP: Passive Survivability and Back-up Power During Disruptions EA: Grid Harmonization EA: GridOptimal Building ACP</p> <p>Impact on Occupant Health:</p> <ul style="list-style-type: none"> • Building with a proactive plan for resilience in the event of natural disaster. <p>Impact on Community Health:</p> <ul style="list-style-type: none"> • Building with a proactive plan for community resilience in the event of natural disaster. • Increasing community resilience by enacting strategies that improve grid usage, flexibility, and resilience.

Note: Pilot credits included in [light blue text](#).

Health and Social Equity Gaps in the LEED Credit Library

Though LEED credits may be used to target a variety of specific health goals - and impact health at the occupant, community, supply chain and waste stream and global scales - the pursuit of health-related LEED credits is not necessarily a comprehensive strategy to promote health and well-being. Blindspots exist within the LEED credit library that may be covered by other rating systems or additional strategies to promote health and social equity. School building project teams are encouraged to think holistically when considering the health of their communities - by integrating both health and equity concepts into green design, school districts can create a stronger community, demonstrate leadership among peers and create spaces in which students, staff and communities may thrive.

Below is a list of some additional health strategies that the LEED rating system does include in its credit and pilot credit library (as of the release of this guidance document). This chart shows other health-focused rating systems that may or may not have credits available to target these needs. It is important to remember that the way we interpret health and equity - and our most pressing health and equity needs - is changing constantly, and no list of health needs or goals is ever definitive. However, engaging members of the community and utilizing public health data and research strategies may help teams prioritize goals that are the most relevant to their community.

Table 2. Health + Equity Needs in Rating Systems

Health Need	LEED v4.1	Enterprise	WELL v2
Active Design	Pilot Credit	Yes	Yes
Biophilic Design	Yes	Not Specified	Yes
Drinking Water Quality	Yes	Yes	Yes
Healthy Nourishment	Not Specified	Yes	Yes
Family Support	Not Specified	Not Specified	Yes
Disease and/or Infection Control	Yes	Not Specified	Yes
Community Wealth Creation / Employment	Not Specified	Yes	Not Directly Specified
Construction Workplace and Construction Working Conditions	Pilot Credit	Not Specified	Not Specified
Indigenous Art + Culture	Not Specified	Not Directly Specified	Not Specified
Discouraging Displacement	Not Specified	Not Specified	Not Specified
School Safety + Security	Not Specified	Not Specified	Not Specified

Ever-changing health, well-being and equity needs also require ever-changing design strategies and solutions. The dynamic nature of health and equity highlights the benefits of a needs-based approach to planning design and construction. This is why engaging members of the community and amplifying voices that otherwise may go unheard is crucial for creating a healthy and equitable project.

Obtaining a LEED certification for school construction, renovation or modernization projects is an excellent way to showcase leadership for a project’s sustainability, health and equity goals. Certifications are encouraged for Health Process Coordinators and school projects that want guidance on the best ways to kick-start the implementation of healthy design features. Rating systems like WELL offer credits that target additional needs through a range of health-focused design strategies. True leaders in sustainability, health and equity may pursue both certifications to demonstrate their commitment to the environment and to the health and well-being of the people who interact with their spaces.

The LEED Health Process pilot credit, however, remains the only process-oriented approach to health and well-being promotion for the built environment. The pilot credit helps school building project teams understand that health promotion strategies are not “one size fits all,” that engaging the members of the school community is the only way fully to appreciate their health needs, and that aiming to improve health beyond the occupants of the school - to the supply chain, waste stream and global health - is the most inclusive health promotion strategy currently available.

Resources for LEED Credits and Health

[Using LEED Green Rating Systems to Promote Population Health](#). An analysis of the health and well-being strategies available within the LEED rating system. This research will help LEED practitioners identify, prioritize and implement credits most relevant to their health and well-being goals and further increase the utility of LEED as a health promotion tool.

[Research Anthology of Health-Promoting Building Strategies](#). Use this resource to identify health impacts of design choices and to justify design decisions based on desired health outcomes.

[USGBC Safety First COVID-19 Response Credit Guide](#). This guide from USGBC provides additional information on each of the LEED “Safety First” pilot credits and helps building teams create healthy spaces and safely re-enter occupants.

[Centering Health Equity Practice Tools and Resources](#). An assembly of frameworks, research and resources developed by equity-focused practitioners and organizations, BIPOC experts and others to help add an equity lens to project decision-making processes.

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Note: The creation of this resource was supported by an academic grant. It is intended for open source use.

LEED Health Process

Monitoring Outcomes Guide



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

Importance of Monitoring and Evaluation

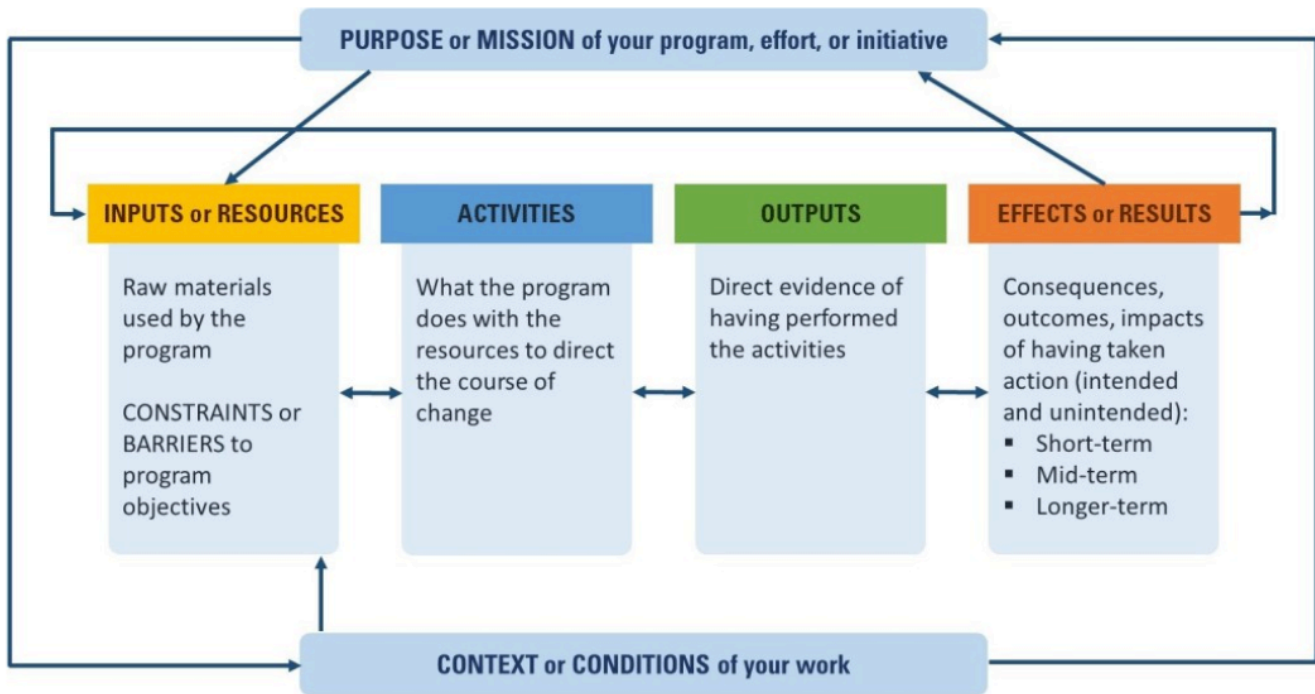
Developing a draft plan during the design and construction phase prepares the school district and Health Process Coordinator for future monitoring and evaluation efforts.* Although the design and construction teams won't be involved in future monitoring efforts, their perspectives are valuable inputs 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 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 school’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 school environment and work in partnership with school health staff to understand the impact of any changes in the school environment on school community health.

To evaluate the project’s impact on the school community throughout the project life-cycle, relevant metrics could include quantitative and qualitative data and information on air quality, energy efficiency, absenteeism, childhood obesity rates, incidence rates of asthma, use and funding of community resources, community outreach for health and equity education, student and staff perspectives and many more. Below is an example of a draft monitoring and evaluation plan based on one of the health goals of a school project. 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 Need	Intervention	Strategy	Performance Metrics	Responsible Parties	Frequency
Decreasing incidence of childhood asthma in schools.	Eliminate or reduce the use of potential asthmagens.	Design strategy specifies linoleum, wood or cork flooring for classrooms/ common areas.	<p><u>Design Metrics:</u> No carpet flooring included in project plan. Only hard surfaces are used.</p> <p><u>Operations Metrics:</u> Screen indoor air for presence of asthmagens.</p> <p><u>Health Metrics:</u> Track incidence rate of acute asthma events.</p>	<p><u>Design Metrics:</u> Architect to certify no carpets used in design.</p> <p><u>Operations Metrics:</u> Facilities manager will engage an IEQ consultant to measure levels of formaldehyde.</p> <p><u>Health Metrics:</u> Nursing staff will collect rates of asthma incidents among students.)</p>	<p><u>Design:</u> Verified plan prior to construction.</p> <p><u>Operations:</u> To be measured once per quarter.</p> <p><u>Health:</u> Annual survey or data collection.</p>

Collecting Performance Data

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

- 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 school community can reveal the community’s attitudes toward sustainability, health and equity as well as behaviors related to the school’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 new school facility is occupied will reveal changes in population health and well-being that can be associated with the new school project. 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.

Below are some example questions from a high school pre- and post-occupancy health and well-being survey. These surveys should be short and simple - ask basic, but revealing questions about health and equity indicators related to the school's health goals. The Health Process Coordinator should work with school health staff to develop different surveys for different student levels and staff members.

Example Occupancy Survey Questions:

High School Student Survey (9-12th Grade)

Thank you for participating in this important school survey.

1. When you feel anxious, nervous or stressed at school, do you have a "safe place" to retreat to? (A "safe place" means a school area/room that makes you feel calm or soothed.)
 1. Yes
 2. No
 3. I don't get anxious or nervous at school.
2. Do you feel more engaged when your classroom has more views of the outside?
 1. Yes
 2. No
3. Do you know where the following health services are located in your school building? Choose all that apply.
 1. Nurse's Suite
 2. School Counselor's Office
 3. Social Worker's Office
 4. Physical and Occupational Therapy
 5. Speech Therapy
4. Do you think that the noise level in your classroom affects your concentration or ability to work?
 1. Yes
 2. No
 3. Sometimes
5. Do you use the community resources that your school provides (activities/programs/workshops) outside of school hours?
 1. Yes
 2. No
 3. My school doesn't provide these resources.
6. At school, I experience physical activity in the following spaces: Choose all that apply.
 1. Gymnasium
 2. Green spaces
 3. Sports fields
 4. Biking and walking paths around the school
 5. Classrooms
 6. Throughout the building

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.

Getting Started Guide: Using Arc in PreK-12 Schools. This guide from USGBC's Center for Green Schools gives districts an overview of the Arc platform and guides teams through project setup, data management and connecting sustainability lessons back to the classroom.

Enterprise Community Partners and Success Measures, Healthy Housing Outcomes Survey. This survey was developed to enable affordable housing owners to measure changes in resident health outcomes most likely to be influenced by healthy housing development. Many of the survey questions can be tailored to a school-specific modernization project to assess student and staff health.

This Monitoring Outcomes Guide is part of the series “Green Schools for Health: A District’s Roadmap to the LEED Health Process.” To find the main guidance document, or to access the other supplemental guides, visit this [webpage](#).

Who We Are: The Green Health Partnership (GHP) is an applied research initiative between the University of Virginia School of Medicine and USGBC, funded by the Robert Wood Johnson Foundation (RWJF). The LEED Health Process was developed by the GHP in partnership with Enterprise Green Communities and the Health Impact Project, a collaboration of RWJF and the Pew Charitable Trusts.

Note: The creation of this resource was supported by an academic grant. It is intended for open source use.



Benjamin Banneker HS, Perkins Eastman DC

District of Columbia Public Schools

Designing for a School Community’s Health, Well-Being, and Success

Building Design + Construction, Schools

In 2018, Andra Swiatocha, facilities manager at D.C. Public Schools (DCPS), worked with DCPS leadership to implement the use of the LEED Health Process pilot credit to guide school modernization projects throughout the DCPS portfolio. By applying the health process at the portfolio scale, DCPS was able to identify and work with members of their internal Facilities, Health Services, Health & P.E., and Food & Nutrition teams to promote student, staff, and community population health through the design, construction, and operations of multiple schools undergoing modernization.

This case study describes the initial four schools impacted by this portfolio-wide commitment.

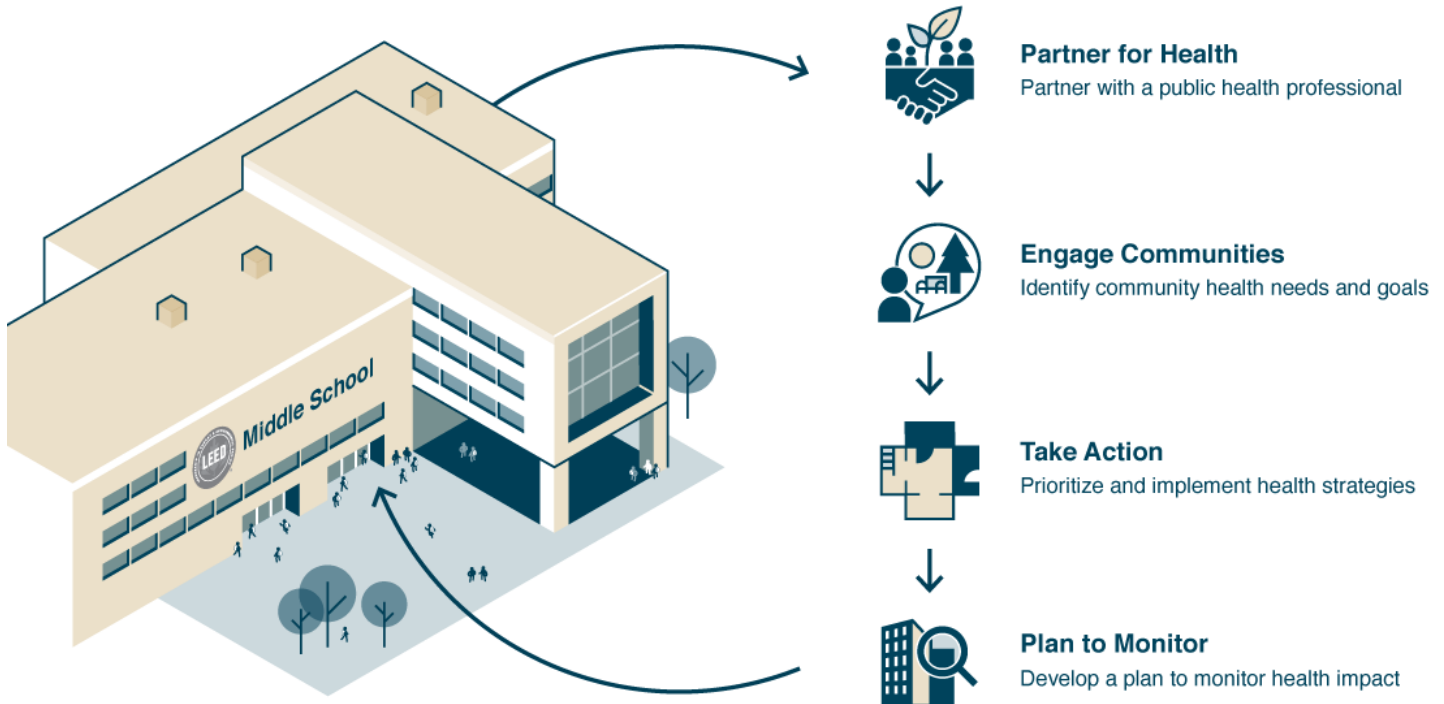
The District of Columbia Public Schools (DCPS) is shaking up the green building movement. This school system, serving students of all academic levels, ranges of economic backgrounds, and neighborhood demographics, has already made impressive strides to promote sustainability within its school buildings, but DCPS

leaders had loftier goals in mind for their new phase of renovations.

Understanding that the environments we live, work, and learn in have a massive impact on our health and well-being, Andrea Swiatocha, the Deputy Chief of Facilities at DCPS, advocated for the use of the LEED Integrative Process for Health Promotion (LEED Health Process) pilot credit to guide pursuit of LEED certification across four schools undergoing modernization.

In September 2018, DCPS released RFPs for the modernization of four schools which specified that projects must meet a minimum of LEED Gold certification and that design teams must utilize the LEED Health Process to guide the project’s LEED strategy. It was a smooth transition for project teams already familiar with the LEED certification process, so when DCPS decided to formalize student and staff health and well-being as a top school priority, LEED’s Health Process pilot credit was a natural first choice.

The LEED Health Process



The LEED Health Process helps built environment project teams consider and promote population health and well-being as a formal part of their green building strategy.

The LEED Health Process is available as the **LEED v4 Integrative Process for Health Promotion pilot credit** and within the LEED v4.1 Integrative Process credit. The process is also aligned with 2020 Enterprise Green Communities Criterion 1.5, Design for Health and Well-Being. The Green Health Partnership, an initiative of the University of Virginia School of Medicine and the U.S. Green Building Council, developed the process in collaboration with Enterprise Community Partners and the Health Impact Project, a collaboration of the Robert Wood Johnson Foundation and The Pew Charitable Trusts.





“The opportunity to discuss modernization of our schools with a health lens really helped us think about how we can enhance the student experience as well as support students holistically.”

- Miriam Kenyon, Director of Health and Physical Education (DCPS)

John Lewis Elementary, Perkins Eastman DC

Partner for Health. Guided by the language of the LEED Health Process credit, DCPS assembled a group of internal school health professionals to serve as health champions with the design teams working on the modernization projects. The group consisted of the facilities and design teams, school nutritionists, health services, and physical education professionals.

Though interdisciplinary collaboration is challenging, even within the same organization, each member of the DCPS team brought a unique understanding of the needs of the community and student population. This diversity of perspective helped drive an innovative discussion on the best ways to promote the health of the school population.

Engaging District Health Professionals

Schools have the unique ability to harness the wealth of existing knowledge and expertise of their district-level health staff. Professionals from both traditional and nontraditional health backgrounds - school district nurses, nutritionists, guidance counselors, social workers, and more - can help teams apply a health perspective to school facility decision-making.

PROJECT STATISTICS

School	John Lewis Elementary	Eaton Elementary	Capitol Hill Montessori	Banneker High School
DC Ward	Ward 4	Ward 3	Ward 6	Ward 1
Number of Students	315 (current) 557 (expected)	467 (current) 490 (expected)	325 (current) 495 (expected)	523 (current) 800 (expected)
Number of Staff	60	80	50	95
Sq. Footage	88,680 sq. ft	~ 77,830 sq. ft	~ 54,000 sq. ft	~ 162,640 sq. ft
Architect	Perkins Eastman DC	Cox Graae + Spack Architects	R. McGhee & Associates	Perkins Eastman DC

Engage Communities. The DCPS health champions and design teams had several collaborative workshop sessions to evaluate the needs of each unique school community and create multidimensional health goals tailored to serve both staff and students. The DCPS Facilities team recruited a public health graduate student to help coordinate outreach with the individual schools and develop community health profile assessments. The graduate intern visited the schools in question, conducted interviews, and helped the DCPS health champions determine which health needs were most pressing in each of the communities.

Pausing to consider the unique place and population based attributes of individual buildings helps project owners and design teams tailor their project's design, construction and operation to address local needs and priorities.

Based on the results of the school observations, the group chose to create a set of baseline goals to be applied to each school along with specific goals to prioritize at each individual school. The baseline health goals included physical activity, movement, and enhancements to the building environments (acoustics, thermal comfort, air quality, and social spaces). Promoting nutrition, drinking water, and access to mental health services were prioritized at the schools most in need.

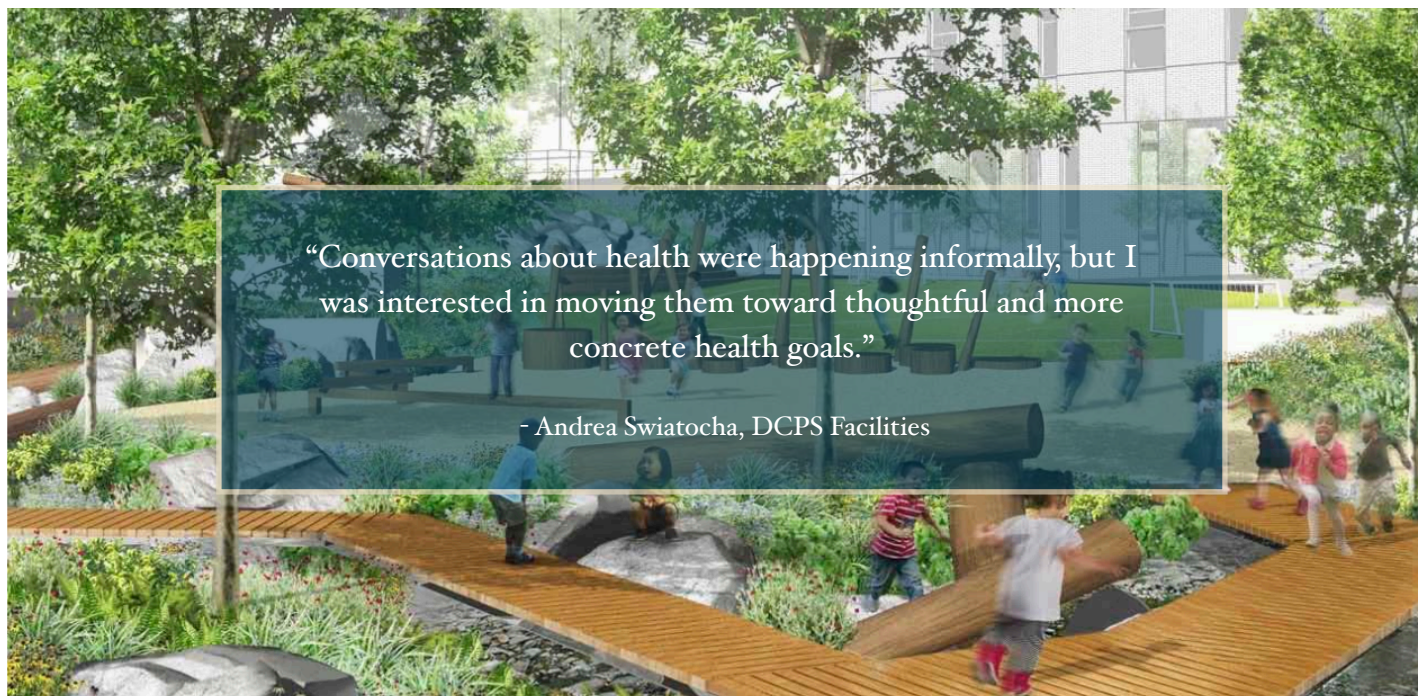
DISTRICT-WIDE HEALTH GOALS

- Promoting physical activity and movement.
- Encouraging healthy nutritional choices and improving access to drinking water stations.
- Increasing availability of mental and general health services.
- Making improvements to air quality, thermal comfort, acoustics, and collaborative social spaces within the school building (IEQ).

SCHOOL SUSTAINABILITY GOALS

- **JOHN LEWIS ELEMENTARY.** NetZero Ready, LEED Gold, WELL Certified.
- **EATON ELEMENTARY.** Preserving green spaces, LEED Gold.
- **CAPITOL HILL MONTESSORI.** LEED Gold.
- **BANNEKER HIGH SCHOOL.** NetZero Ready, LEED Gold.





Capitol Hill Montessori @ Logan, R. McChiee & Associates

Take Action. After establishing baseline and school specific health goals, the DCPS team worked with each design team to prioritize specific actions in order to address the established goals. Some of the DCPS design strategies included creating collaborative spaces for students to connect, retrofitting an auditorium space for increased movement during assemblies, ensuring that clean drinking water fountains were readily available for student use, and making classroom spaces as acoustically and thermally comfortable as possible.

Beyond the obvious benefits of these design strategies, the LEED Health Process pilot credit also helps school systems create spaces that promote equal opportunity for student success.

The health partner collaborations helped design teams determine what previously-planned school modernizations could be potentially re-framed to achieve their health goals. Together, they finalized their designs for both health and sustainability and began construction.

Health Need	Health Solution
Encouraging Physical Activity	<p>Stairways to Success</p> <p>All four DCPS schools undergoing modernization prioritized the inclusion of prominent, open stairways. Stairs help make movement and circulation inviting, and with the addition of alcoves and library access (like the stair way at Banneker High School), students and staff will consistently choose to use them.</p>
Drinking Water Promotion	<p>Water, Water Everywhere</p> <p>After some thoughtful conversations about the best placement of drinking fountains, DCPS decided to install spigots and bottle fillers where all staff and students would have access to them: gymnasiums, hallways, and other highly-trafficked areas.</p>
Access to Mental Health Services	<p>Help is —> Here</p> <p>While the district has made general and mental health services <i>available</i> for their communities, their new goal is to make these services more <i>accessible</i>. Healthy design strategies helped DCPS choose more discreet locations for counseling services, but programmatic strategies will help the schools communicate not only that these resources are available, but also where to find them.</p>



John Lewis Elementary, Perkins Eastman DC

Plan to Monitor. In order to monitor and evaluate the efficacy of their chosen health design and programmatic strategies, DCPS planned to issue a pre- and post-occupancy health and well-being survey for staff members and students, but the effort was derailed by the COVID-19 pandemic when the schools were emptied in the spring of 2020. Using surveys as a monitoring tool for a school project can reveal how the buildings influence perceptions about sustainability and health, as well as behaviors related to the school's health goals. Once DCPS students re-enter their newly modernized schools, the facilities team will issue a post-occupancy survey which will help the school project team find the right strategies and programs to implement at the operations scale.

The DCPS team also considered monitoring and evaluation strategies throughout the project timeline, particularly during both goal-setting and design workshops, with the expectation that their intentional decisions will have a measurable impact on health and well-being when the schools re-open.

Conclusion. While the four DCPS schools will not open until August of 2021, the diverse team of professionals working on the modernization projects feel confident about the positive impact their actions will generate. By using an intentional process to promote health, DCPS is able to implement designs that support their targeted health goals, utilize the pre-existing wellness policies and programs from their Health Services team, and gain a greater understanding of how the built environment can influence the health and well-being of the school community. With guidance from the LEED Health Process credit and thoughtful decision-making, the process will not cost the school system any additional funding, nor will it delay the schedule of the modernization.

DCPS has shown that this feasible process to intentionally promote health and well-being is able to create value beyond what currently exists in standard practice. The LEED Health Process helps bring the power of public health research to individuals that have the capacity to create positive change for their communities and helps to serve a goal that everyone can stand behind.

DCPS's Application of the LEED Health Process

PROJECT TEAM

The interdisciplinary DCPS team included stakeholders from the following departments and disciplines:

- **INTERNAL TEAM.** DCPS Facilities, Health Services, Sustainability, Health & Physical Education, Food & Nutrition, and DCPS School Leadership.
- **PLANNING.** DC Department of General Services (DGS), DCPS Facilities.
- **DESIGN.** Perkins Eastman DC, Cox Graae + Spack Architects, and R. McGhee & Associates.

The Impact of COVID-19

When the COVID-19 pandemic hit the US in March 2020, school districts had to quickly reconfigure their approach to delivering education and maintaining access to critical services such as free and reduced lunches. The demands of physical school facilities changed rapidly as buildings shut down and schools transitioned to online learning. When schools considered re-opening in the fall, facilities teams had to carefully consider how to manipulate the design and operation of school buildings to minimize the spread of COVID-19. Because of the connections formed between the DCPS facilities and health teams during the LEED Health Process pilot credit implementation process, the facilities team was able to more quickly and efficiently address these new COVID-related challenges.



Partner for Health. Leveraging the experience within their own organization, DCPS created a team of internal health & P.E., food & nutrition, and facilities professionals to serve as health partners.

Engage Communities. The project team set health and well-being goals for the DCPS schools based on the needs of students, staff and community. Activity, nutrition, and mental health were priorities.

Take Action. The team selected school design and programmatic health strategies - like accessible drinking fountains and convertible spaces for movement - to address the needs of the population.

Plan to Monitor. The team at DCPS will continue to monitor the effectiveness of their chosen strategies when the students return to their schools. The health process will help them reassess their priorities in the face of new health challenges.

TIMELINE OF EVENTS

2011, SEPTEMBER	2018, SEPTEMBER	2018, NOVEMBER	2019, APRIL	2019, MAY	2019, JUNE	2019, NOVEMBER	2020, JANUARY
LEED Gold mandate established after introduction of the DC Healthy Schools Act of 2010.	DCPS issues RFPs for modernization at four schools specifying use of the LEED Health Process pilot credit.	DCPS hosts an internal health and design workshop to begin establishing health goals.	The design teams and DCPS health champions meet to discuss community and school-specific health goals and plans for health promotion.	A DCPS health partner conducts visits, observation, and interviews with students and staff to complete community profiles.	Design and health champions workshop to discuss the needs of the community and choose design specific strategies for each health goal.	Members of DCPS and health champions develop student and staff surveys to monitor and evaluate occupancy experience.	School construction begins. Students will remain in swing spaces until the modernization process concludes in August of 2021.



www.centerforgreenschools.org

Who we are

Founded in 2013, the Green Health Partnership (GHP) is an academic research and development group between the University of Virginia School of Medicine and the U.S. Green Building Council with funding from the Robert Wood Johnson Foundation. GHP utilizes the green building movement as a platform and blueprint for creating a self-sustaining, scalable market for health promotion within the real estate industry.

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