PRECEDE

Public Repository to Engage Community and Enhance Design Equity

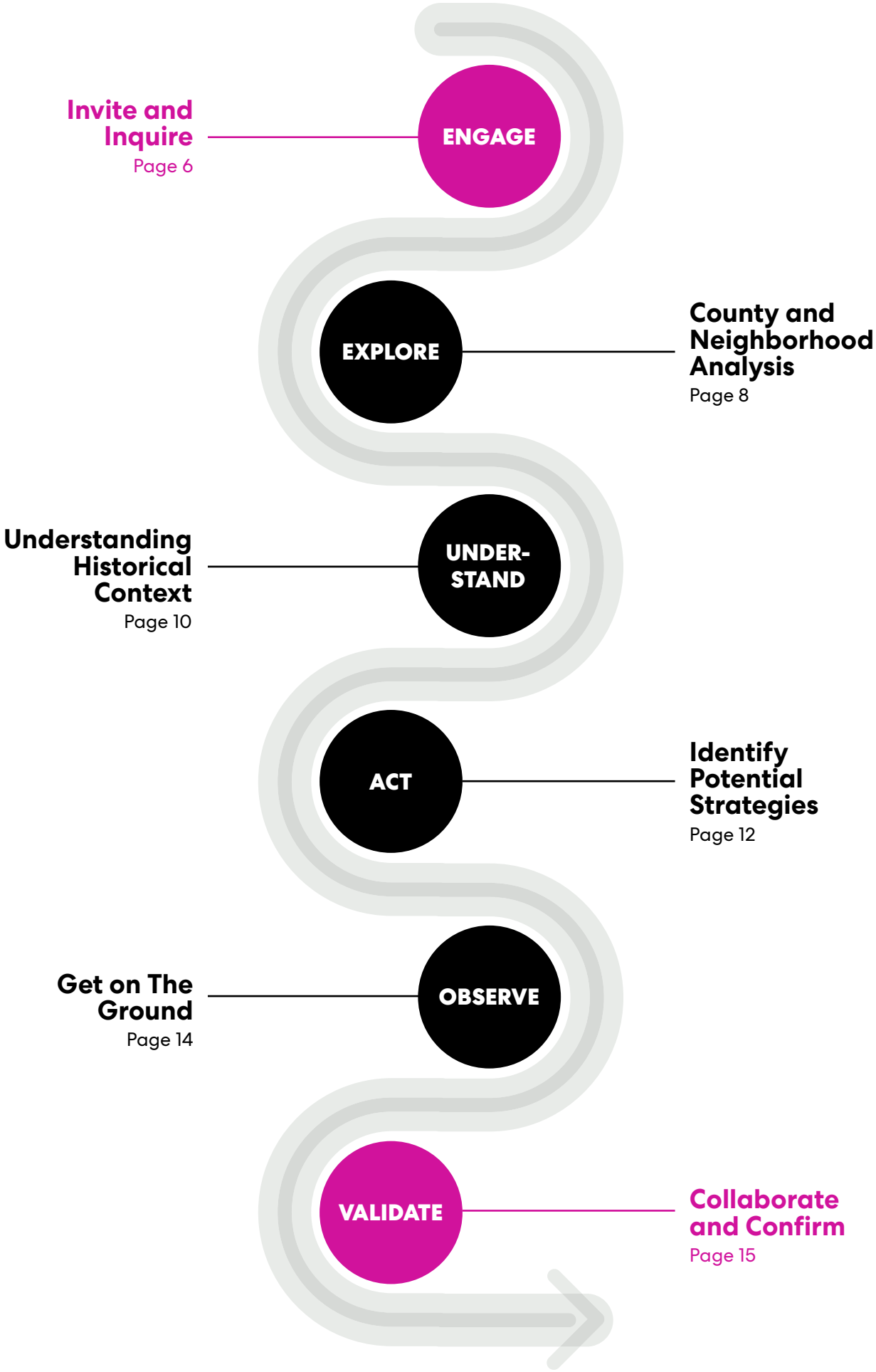
ENGAGEMENT & VALIDATION GUIDE.

V1.0
November 2023

Perkins&Will

Validation is the process of presenting research findings to community stakeholders in the interest of achieving consensus towards action. Until we share our data with the individuals impacted or represented by it, we cannot assume that it is valid.

This guide will provide you with resources to facilitate successful community engagement and validation.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Why Validation?

We validate in order to create a shared vision with community or building occupants. Publicly accessible data can rapidly visualize risk factors and public health challenges, but validation presents a path for action.

Why is co-creating a healthy building vision so important to advancing design equity?

PRECEDE provides you with an initial snapshot of health in a community. As **PRECEDE** users, you know that a community's boundaries may not be specific enough for your type of building or site. For example, a workplace for healthy adults may require a different health-promoting design response than a children's hospital even if they are in the same neighborhood. Community engagement and validation of your **PRECEDE** findings will be the most illuminating part of the process. Authentic listening and acceptance of other perspectives will highlight design opportunities you didn't even know were there.

The **PRECEDE** team wants these resources to help you have a deeper health and wellbeing conversation with the community you are serving. To ensure environmental restorative justice for minoritized communities, we need to make sure we are responding to the right questions and problems. The data can only tell us so much, and our own biases may prevent us from truly empathetic and responsive design.

This framework includes a mix of qualitative and quantitative methods, to enrich data with lived experience for the most accurate portrayal of your project area.

The viability of future design interventions can be undermined by a lack of understanding of historical lapses in trust or support. A conscious effort to identify these lived experiences through historical literature review and qualitative methods can help to answer what has been done, why it did or did not work, and what the site, building, or neighbourhood really need moving forward.

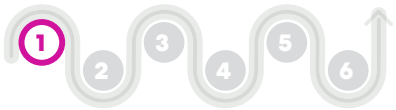
Figure: *Example of community mapping exercise done with youth in Toronto (Source: Perkins&Will, Urban Minds)*

An example

How can validation and engagement look different between two projects?

	K-12 Schools (Urban Context)	Senior Housing (Rural Context)
ENGAGE	Invite educators and parents after school or work hours and offer compensation, childcare, transportation to support engagement. Offer hybrid, asynchronous engagement opportunities for individuals who cannot attend or travel.	Host sessions in-person and use voice augmentation to ensure residents can hear. Provide printed visuals and documents using large, high contrast font. Keep sessions to an appropriate length to not fatigue participants. Invite service coordinator and staff and provide compensation for their time.
EXPLORE	Use **PRECEDE's EXPLORE** tool to identify health priorities relevant to their census tract and surrounding census tracts because students will likely not live in the exact location of their school.	Use **PRECEDE's EXPLORE** tool to identify health priorities relevant to their census tract. Prioritize chronic diseases and exposures that may exacerbate conditions in older adults.
UNDER-STAND	Conduct external research and ask school leadership about the history of the school. Understand how economic, social or demographic changes could influence student and educator success.	Conduct external research and ask residents the history of the town and the economic, social or demographic pressures that may influence access to services, transportation.
ACT	Use **PRECEDE's ACT** tool and expand the list based on, community needs, health priorities and contextual understanding.	Use **PRECEDE's ACT** tool and expand the list based on, resident needs, health priorities and contextual understanding.
OBSERVE	Observe educators in action and see how they adapt or alter their space to meet their needs. Observe where and how students are learning, eating lunch, and socializing.	Administer paper surveys and conduct activity mapping to understand how residents are using this space.
VALIDATE	Synthesize results and share findings with educators, school leadership, and students. Identify gaps in your research and potential health equity needs.	Synthesize results and share findings with residents and service providers. Identify gaps in your research and potential health equity needs.

1. Engage



Invite people in and inquire about their vision for the design.

Engaging involves thoughtfully and sensitively inviting the people affected by a design into the design process.

Starting the design process with engagement is crucial for several reasons:

- Supporting open dialogue with stakeholders and end-users from the outset.
- Identifying community needs, preferences, and pain points.
- Creating a solution that truly addresses needs in an equitable way.

Inviting people into the process at the very beginning allows for diverse perspectives and insights. Collaborating with them helps designers gain a comprehensive view of the problem, leading to more innovating and effective solutions. Plus, this creates a sense of ownership for the stakeholders, users, and/or residents which empowers them to be more invested in the final design.

The engagement process must begin with these three steps:

Identify the communities

Identify the most vulnerable communities that the project will potentially impact. Knowing who to reach, especially historically marginalized populations, by leading with a racial and social lens will help you identify the institutions and organizations to reach out to. These groups will provide insight into how best to reach vulnerable communities and what tools will be appropriate.

It will be important to recognize historical barriers to community participation. For example, certain communities may have decades of distrust with city governments and therefore may require a different recruitment or communication approach.

Reach out to local community groups, leaders, and champions — including youth. This will help to identify culturally relevant ideas, and engagement approaches that better resonate with people.

Establish Equity Criteria

Design engagement approaches around the project's most vulnerable communities — and set equity criteria for accompanying tools. When selecting engagement tools, consider the following three equity concepts as they relate to the groups identified, as well as to the overall community (in box below).

Create an Engagement Toolkit

Use a mix of analog and digital tools (see page 7). Digital tools often come with their own barriers, particularly if digital and online platforms are the only means to engage in a process. Such tools may limit participation among-native English speakers, people who are less comfortable with technology, people living with disabilities, and people without access to reliable internet services.

Think about this...

Accessibility: Is the tool ADA compliant? Easy to translate? Culturally relevant? Do people have places to sit? Are you providing childcare?

Community penetration: Does the tool have a wide reach among target groups? What are the barriers for target groups or the overall community?

User-friendliness: Is the tool easy to use? Is it intuitive? Are there complicated steps, such as logins and passwords (virtual tools), or a hard-to-find or inaccessible location (in-person tools)?

Compensation: Have you considered how to pay people for their time? Can you offer simple refreshments? gift cards?

Analog

Tools	Features	Equity Considerations
Regular Mail	Postcards or utility bill inserts with clear project information and a call to action such as a worksheet or survey. Provides return address.	+ May be easier for older adults to participate – Does not account for the unhoused or housing-unstable
Phone	Phone banking / Phone-based teleconferences.	+ May be easier for older adults to participate – Does not account for those with no access to a phone connection
Pop-Up Station	Signage and posters with key project information and instructions of how to provide feedback. Project team can be present. Drop-off box for comments and survey responses.	+ Located in publicly accessible spaces or venues (sidewalk, park, library, community centre) – Restricted to specific time and date, feedback period is not accessible 24/7
Survey	Physical or digital survey; wide variety of question types (multiple choice, open ended, etc.) *E.g. Survey Monkey, Mentimeter, physical questionnaire*	+ Interface can be in multiple languages + Works on desktop and mobile devices, with paper alternatives – Content cannot be automatically translated
Workshop / Focus Group	Targeted workshops with stakeholders to discuss specific issues and opportunities. Can split up into smaller groups with focused themes. Ability to draw, write text, add sticky notes, and so forth. *E.g. Design charrettes, Whiteboard, Miro, Sharepoint, storytelling*	+ Can be held in person or digitally + High interactivity which fosters discussion + Captures more voices + Restricted to specific time and date, feedback period is not accessible 24/7
One on One Interviews	Identify specific stakeholders that require a deep-dive and comprehensive conversation.	+ Can be held in person or digitally + More in-depth account with the opportunity for follow-up – Time-intensive and smaller sample size
Video Conference	Conferencing platforms allow audio and video conferencing, with presentation through share-screen options. Some allow for breakout rooms, polling, or whiteboarding features.	+ Accessible features such as live captions + Provides flexibility to participant location and schedule by reducing commutes. – Only some platforms have phone call-in options, unless, it is fully digital and requires internet connection
Map Based Survey / Data Walk	Geo-located survey platform; specific answers from community are assigned to a specific spatial datapoint. Data visualization with map display. *E.g. Streetwyze, Maptionnaire, Social Pinpoint, etc.*	+ Accessible features such as translation options and screen-readers – Fully digital, requires internet connection
Social Media	Broad surveys or forums integrated on social media platforms, such as polling, voting, or live Q&As.	+ Accessible features such as translation options and screen-readers – Fully digital, requires internet connection and sign-up on social media platform

Digital

Table is co-designed with Nelson\Nygaard, in-house mobility experts part of Perkins&Will

2. Explore

Explore the County and Neighborhood via EXPLORE.

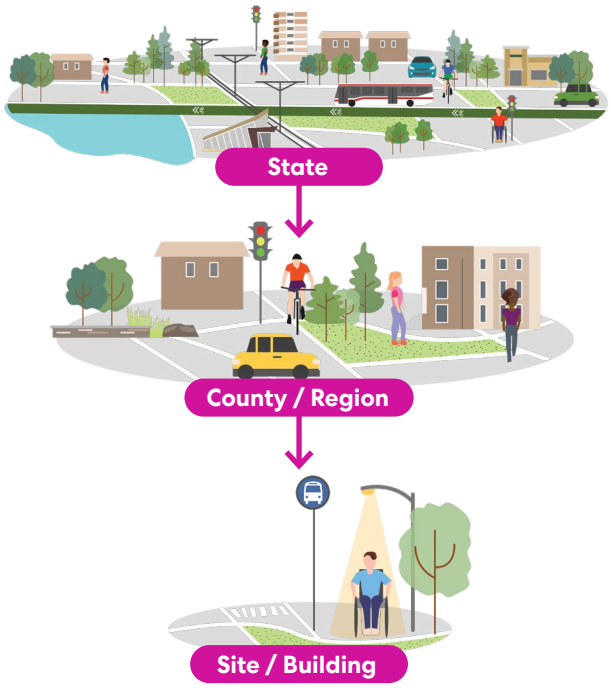
Learn more about the benefits of incorporating neighborhood health data in early design stages.

First, thanks for sticking with us to this point. Second, data on community health is useful for several reasons.

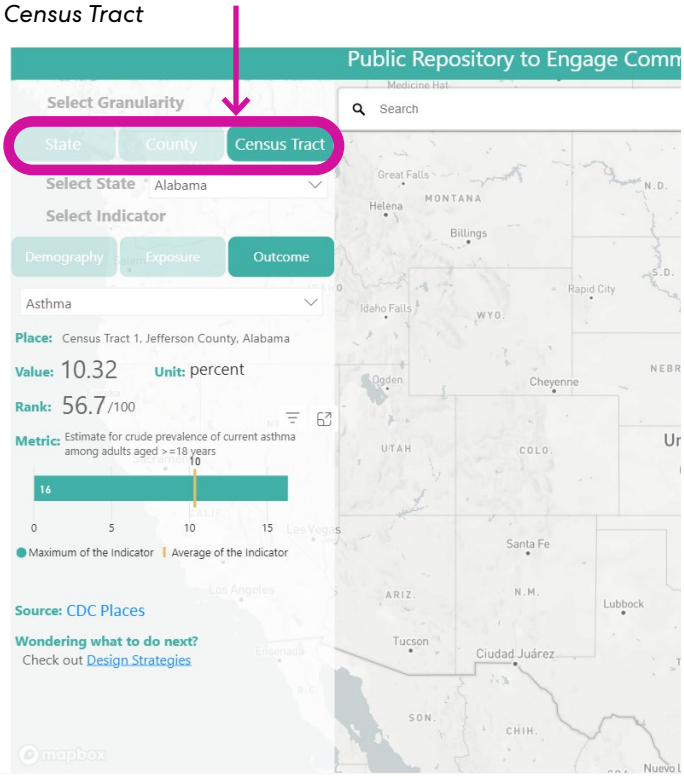
- We bring our health context with us when we enter our built environment. Design can promote our health or add physical or mental stress for the 90% of the day we spend in indoor environments. Incorporating healthy design thinking is most effective when integrated early into the design process because it may influence test fits, programming, or budgets. (For the record, healthy design does not have to be more expensive if done early and thoughtfully).
- Communities experiencing historic disinvestment may not be able to afford or maintain all the healthy features. Therefore, community health data starts the conversation on how we can tailor a healthy built environment approach.
- It is uncommon to live in the census tract of our place of work or where we receive healthcare. Therefore, looking at the community data in surrounding census tracts and at the county level may provide greater context and help triangulate the main health concerns and strengths in your community of interest.

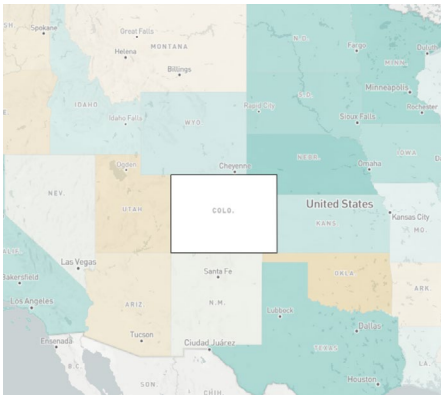
Using **PRECEDE's EXPLORE** dashboard can jumpstart this step by providing contextual data from diverse data sources including the U.S. Environmental Protection Agency, Census Bureau and Centers of Disease Control and Prevention. EXPLORE does not include all available indicators and encourage you to look at other data tools to create an initial quantitative overview of your community.

Even if you're working on an interiors project, we can learn so much from exploring data at different scales.



*The **PRECEDE's Explore** tool allows you to analyze data at three different scales and granularities: State, County, Census Tract*

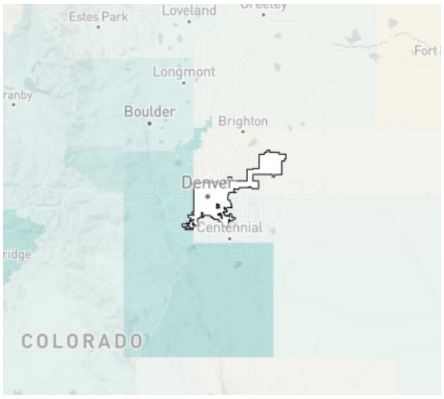




Understanding the State scale...

The big picture! The State scale is important because it is where government agencies are most at play and where the largest and broadest policy and regulatory frameworks are implemented.

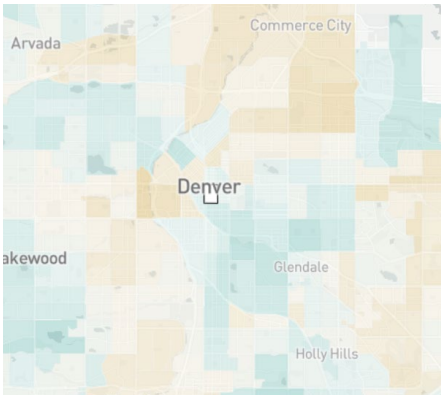
What this scale tells us: It provides context through various lenses, including: cross-State transportation networks like freeways or rail; natural environment features like State Parks; and distribution of social resources. Compare the state of interest to the surrounding ones. What causes these differences or similarities? How does the entire state fare compared to the others?



Understanding the County scale...

The County scale is important because counties have their own governments that handle regional matters. Counties can include cities, towns, and rural populations and vary in sizes due to factors like historical settlement patterns, geographical size, and population distribution.

What this scale tells us: It provides context through various lenses including: transportation or other physical infrastructure networks that cross cities and towns like roads or bridges; natural environment features like regional park systems; education; and housing. Compare the county of interest to the surrounding ones.



Understanding the Census Tract scale...

Census tracts are statistical subdivisions of a County. They generally have a population size between 1,200 and 8,000 people with an optimal size of 4,000 people. Boundaries are delineated with the intention that statistical comparisons can be made from census to census.

What this scale tells us: As each census tract holds approximately the same amount of population, the sizes of tracts can indicate built environment patterns such as population density. Getting close to the census tract will provide more granular and specific data about the local characteristics.

Think about this...

There may be other scales that are not formally defined by political boundaries like State, County, or Census Tract, such as neighborhoods. A combination of spatial elements may be at play that impact how we interpret collective spaces: by geography (a neighborhood between two rivers), mobility (different sides of a subway route), society (cultural neighborhoods), or psycho-geography (some folks may interpret neighborhood boundaries by their own interpretations, biases or history).

It is important that we recognize these interpretations and consider them just as valid as these formal State, County, or Census Tract scales. You can learn more about these human experiences and perceptions of space and scale through engagement and consultation.

3. Understand

Understanding the historical and current context better.

All present circumstances are the result of past events and influences. Knowledge of historical context allows for a deeper understanding of the present.

Often, when working on a planning or design study, the analysis starts and stays within the present timeframe. Looking to the past allows for deeper context, and creates an understanding of all aspects of resilience, from physical to environmental, to social and economical. It allows you to trace a place throughout history to present day.

We often discuss resilience planning in terms of **Shocks** and **Stressors**. A shock is an isolated event, whereas stressors are chronic pressures to a place.

An example of a shock is an extreme heat event. Rising temperatures and heat waves can be exacerbated by the lack of technological, structural, and physiological adaptations in a city or district. The shock may have geographic variability such as an urban heat island keeping the city warmer throughout the day compared to rural surrounding areas.

Traditionally, stressors are characteristics like poverty and housing insecurity. A community often experiences more than one stressor at a time and are geographically clustered due to social, political, historical, or environmental forces.

For example, if gentrification is a known issue within your district, how did we get here? What economic, social, political, or environmental shocks and stressors over time led to this and how can we learn from it? In the context of COVID-19, has the city experienced any other pandemics or infectious diseases? If so, how did it prepare or adapt?

If this type of analysis has already been employed for a project in a similar context recently, the timeline created from that effort can be a great starting point!

TIP: Many city governments may have their own resilience office, or department, and may have already done a resilience assessment, strategy, or plan. These often identify the city's existing and historical shocks and stresses. The city's historical archives or heritage preservation agency can provide detailed timelines, photographs, or maps that can offer deep historical context. This may reveal important physical changes to the built environment or public realm.

An example study of some of the shocks and stressors (historical, societal, environmental or political events/ pressures) that affected San Francisco, particularly the Black population of the city

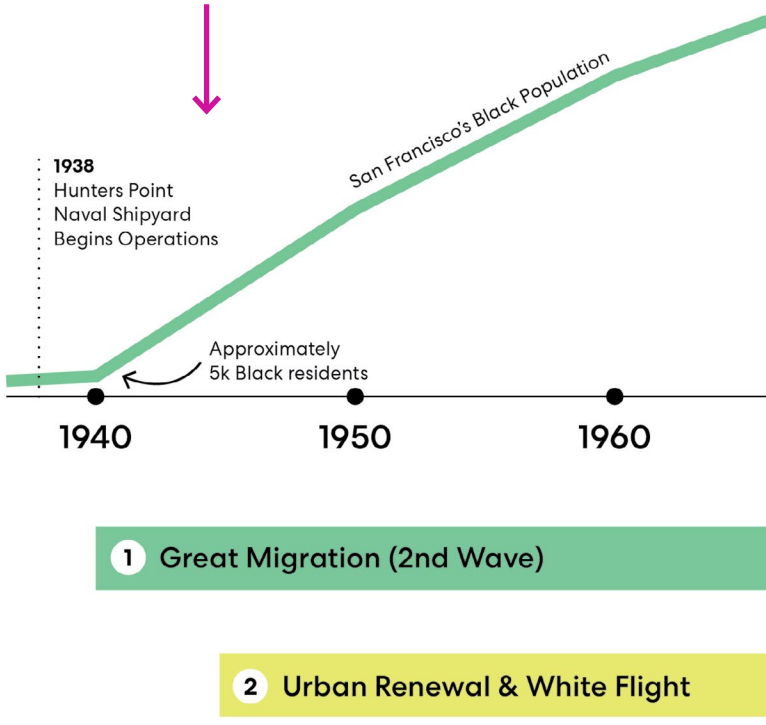


Figure: *Example of an engagement activity, where various stakeholders came together to map out Shocks and Stressors that are affecting themselves or their community*

Think about this...

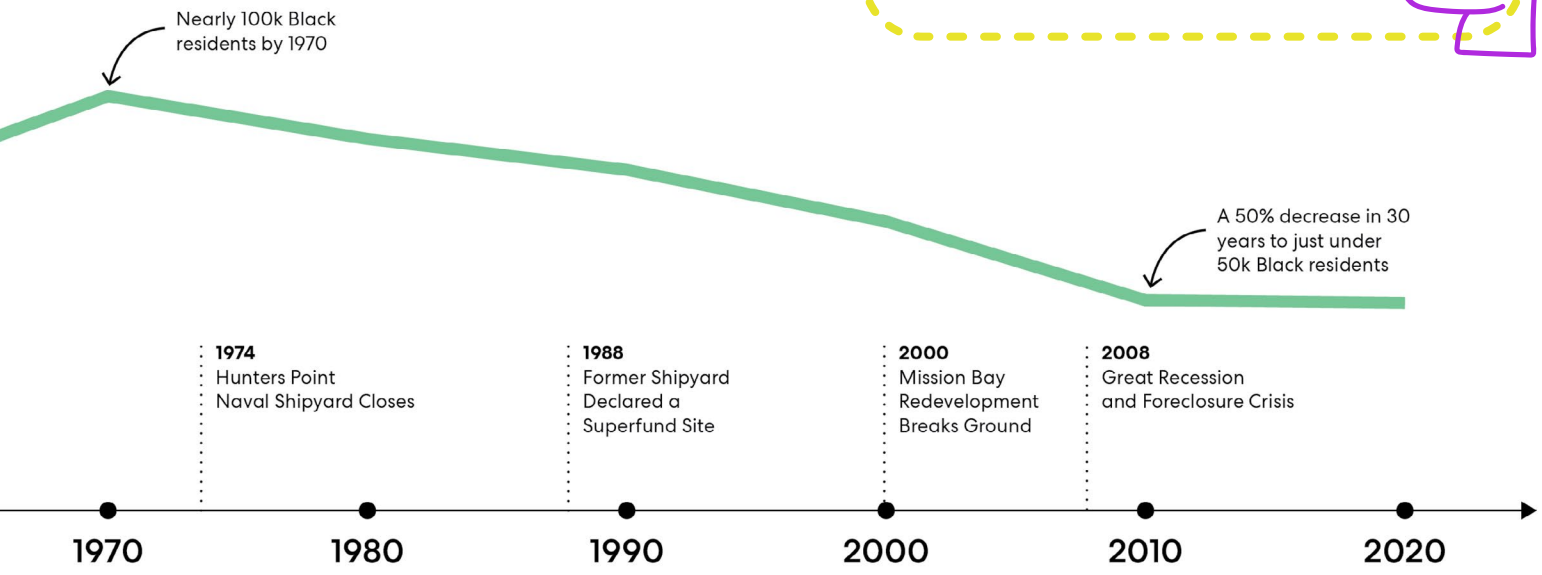
What are the environmental, physical, social, and economic shocks or stressors for this city?

What do the neighborhoods look and feel like today? How has the built form, public realm, and demographic context changed over time and why?

What are the issues and constraints at this very moment? Has there been a pattern or history of this?

What are the trends of this looking forward? (e.g. climate change impacts)

What forces were at play to have created the problems that we are here to solve, adapt to, or mitigate?



3 Urban Disinvestment

7 Accelerated Black Displacement

4 Rise of Silicon Valley

6 Dot Com Bubble → Tech Boom

5 Decline in Urban Housing Production

8

4. Act

Identify potential strategies via ACT.

Our impact is measured by our actions. Design strategies have a direct effect on how communities live, work, learn, play, and heal.

A number of potential design recommendations may be possible, but advancing design equity requires filtering and prioritizing strategies that best serve the occupants.

By working with the community or occupants to identify design drivers, you can create a priority matrix and understand how valued each strategies is. In the example on the right, you see focus areas and guiding questions to support a tailored approach. These questions can be 'scored' to further help bring the most relevant and critical strategies to the top. This example helped filter 50 potential strategies into a "must have" and "like-to-have" list. This approach can help you identify shared design goals and prioritize the most important solutions.

Priority Focus	Community Priority	Length of Benefit	Feasibility
	Is this a strategy the community has expressed as a priority?	How long of a positive impact will this strategy have?	What is the ease of implementation of this strategy, considering approvals, cost, timelines, partnerships and leadership?
3 Highest Priority	This is a HIGH priority for the community.	This will have a long term positive impact, for YEARS.	This will require MINIMAL investment, engagement, and human resources until full implementation.
2 Moderate Priority	This is a MODERATE priority for the community.	This will have a long term positive impact, for MONTHS.	This will require MODERATE investment, engagement, and human resources until full implementation.
1 Low Priority	This is a LOW priority for the community.	This will have a short term positive impact, for DAYS or WEEKS.	This will require SIGNIFICANT investment, engagement, and human resources until full implementation.

↑ *Example of a 'scoring' approach for an urban design project, to weigh the benefits and constraints of each strategy. This can be easily adapted for other scales like architectural or interior projects.*

← *From **PRECEDE**'s Act Tool, you can filter for strategies that target a specific exposure or outcome*

Use PRECEDE's LEARN Tool!

Limited Disruption	Social Health	Environmental Health	Safety and Accessibility	Mitigation of Health Concerns
What is the magnitude and length of disruption to adapt/implement physical infrastructure for this strategy?	How well does this strategy promote interpersonal relationships, communicate a sense of belonging, and address existing social disparities and inequities?	How does this strategy promote the health of the natural and built environment?	How does it offer senses of security and the freedom to move and for whom?	Does this strategy respond to current health concerns identified in the district?
Short-term changes that disrupt public infrastructure for DAYS or WEEKS.	This has HIGH positive impact on interpersonal relationships, belonging, and addresses existing inequities in this district.	SIGNIFICANTLY MITIGATES or REMEDIATES environmental health hazards and PROMOTES human and ecosystem health & well-being	EMPOWERS safe and accessible movement in your district without fear of physical or social threats or safety concerns, for ALL people	SIGNIFICANTLY ADDRESSES prior health concerns and PROMOTES human health & well-being
Medium-term changes that disrupt public infrastructure for MONTHS.	This has MODERATE positive impact on interpersonal relationships, and belonging, but minimally addresses existing inequities in this district and/or further exacerbates them.	MODERATELY or MINIMALLY MITIGATES or REMEDIATES environmental health hazards and PROMOTES human and ecosystem health & well-being	PROVIDES safe and accessible movement in your district without fear of physical or social threats or safety concerns, for MOST people	ADDRESSES prior health concerns and PROMOTES human health & well-being
Long-term changes that disrupt public infrastructure for YEARS.	This has LOW to NO positive impact on interpersonal relationships, belonging, and does not address existing inequities in this district, and/or further exacerbates them.	NO CHANGE in environmental health hazards and human and ecosystem health & well-being	PROVIDES safe and accessible movement in your district without fear of physical or social threats or safety concerns, for SOME people	NO CHANGE in prior health concerns
	0 **Negative or Harmful Impact**			

"The designer must be able to learn from precedents, know the present, and foretell the future — must mediate these things, and have two special objects in view with regard to people, namely, to do good or to do no harm."

– Adapted From "Of The Epidemics" by Hippocrates

5. Observe

Get on the ground and record your observations.

In-person observation allows designers and planners to confirm assumptions and identify areas where existing data is inconsistent with lived experience.

This step is more than a site visit; observation requires an intentional focus on the quality of spaces and how it contributes to "place." It is recommended that you visit a similar and/or nearby place to understand how the stresses/ shocks play out in two different places.

There are a variety of approaches for this step. A few are listed in the box below.

Community Level	Interior Level
Pedestrian and Traffic Counts: Who's moving through the place? **Age and Gender Count**: Who is spending time in this place? **Façade Inventory:** How transparent or "active" is the ground floor of a building? Does it engage the sidewalk? **Photo/Video Study:** What moments or aspects of the place can be captured through photograph? **Activity Mapping**: What do people choose to do in a public space? When? Where? **Social Media Evaluation:** What do users want to remember or share within a place? **Intercept Surveys:** How do people feel about a place? Are the users representative of the region's demographics? Is this a place that invites people from all socioeconomic levels?	**Indoor Environmental Quality Monitoring or Building Automation System Data:** Are individuals thermally comfortable? Is it noisy? Are there periods of time with high levels of indoor air pollutants? **Visual Signs of Adaptability and Controllability:** Are people bringing in other devices to improve their existing space (e.g. space heaters, blankets, noise cancelling headphones)? **Surveys:** What information can occupants self-report about their space? **Activity Mapping:** What activities are people participating in? **Occupancy Sensors or Computer Vision:** When, where, and how long are people occupying the current space?

Figure: *Going on a site tour of a place and its neighborhood can highlight human behaviors you can't identify from a map, such as desire paths*

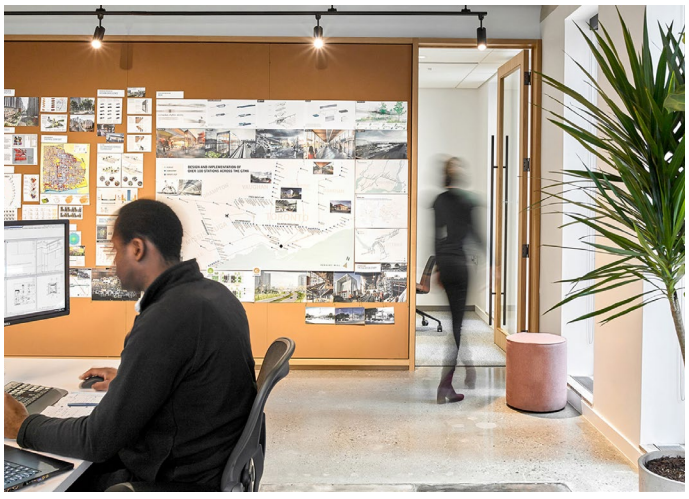


Figure: *Occupancy sensors are one way to measure when, where, and for how long people occupy indoor space for*

6. Validate

Engage your stakeholders and community (yes, again and again!)

Validation is an ongoing process! A comprehensive and intersectional understanding of a community comes from continuous engagement to validate data and observations.

The site visits or public life studies described in step five will only scratch the surface of on-the-ground data. It is important that as you collect your data – both quantitative data, such as through the **PRECEDE** EXPLORE tool, or via qualitative methods such as those engagement processes suggested in this guide—that you remember to validate them with your users and/or community.

Constant transparent communication is a critical part of this process, as it allows verification and validation to occur throughout the work, and as you use **PRECEDE**. Not everything we learn in this process will be easy to digest or have a clear solution, but it is important to share your findings through appropriate mechanisms including social media, progress reports, community events, newsletters, accessible presentations with visuals, or a more formal final report with recommendations.

This Guide is not suggesting to only engage twice, but rather throughout the whole design process.

Why do designers need to be part of this work?

Designers can be trusted allies in healthy design.

- They are liaisons between diverse stakeholders such as, policymakers, occupants, engineers, and facility managers.
- Designers work across the entirety of the community engagement continuum

Increasing Level of Community Involvement, Impact, Trust, and Communication Flow

Outreach Some Community Involvement

- Communication flows from one to the other, to inform
- Provides community with information
- Entities coexist
- Outcomes: Optimally, establishes communication channels and channels for outreach

Consult More Community Involvement

- Communication flows to the community and then back, answer seeking
- Gets information or feedback from the community
- Entities share information
- Outcomes: Develops connections

Involve Better Community Involvement

- Communication flows both ways, participatory form of communication
- Involves more participation with community on issues
- Entities cooperate with each other
- Outcomes: Visibility of partnership established with increased cooperation

Collaborate Community Involvement

- Communication flow is bidirectional
- Forms partnerships with community on each aspect of project from development to solution
- Entities form bidirectional communication channels
- Outcomes: Partnership building, trust building

Shared Leadership

- Strong bidirectional relationship
- Final decision making is at community level
- Entities have formed strong partnership structures
- Outcomes: Broader health outcomes affecting broader community, strong bidirectional trust built

→ **Reference:** *Modified by the authors from the International Association for Public Participation*

A Case Study: Greenpeace USA Headquarters

Washington, D.C.

Client: Greenpeace USA — **Size:** 15,000 square feet — **Completion Date:** 2023

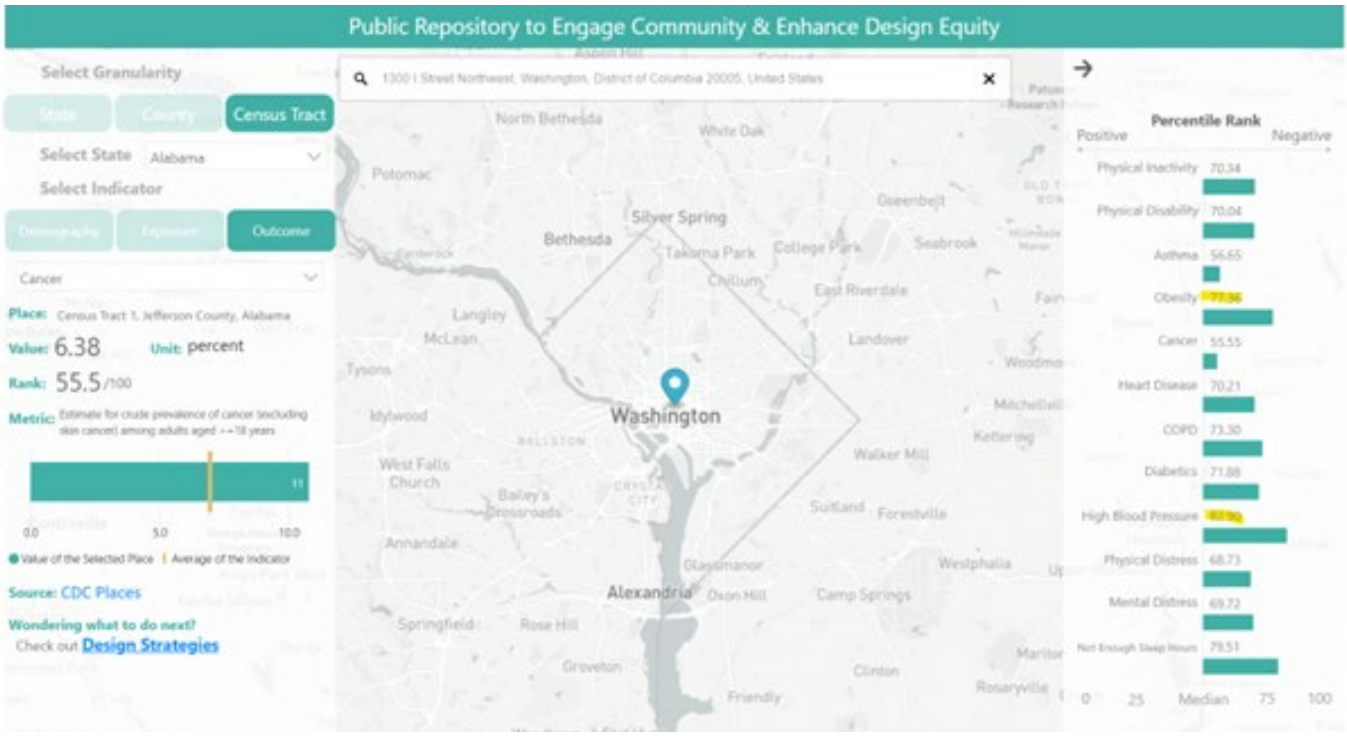
— **WHAT IT IS**

A case study showing how to integrate the PRECEDE tool to identify public health priorities and strategies.

Greenpeace USA is committed to transforming the country's unjust social, environmental, and economic systems from the ground up to address the climate crisis, safeguard our planet for future generations, advance racial justice, and build an economy that puts people over profits. Their new office is the physical embodiment of their mission, with a design focusing on reducing carbon emissions, creating an inclusive workplace environment and promoting occupant health. Project goals include:

- Demonstrating the importance and urgency of addressing climate change through design.
- Creating a welcoming and relatable space for all visitors, from grassroots volunteers to corporate leaders.
- Providing a quality workspace to improve employee satisfaction and improved recruitment.
- Utilize storytelling to showcase both Greenpeace's legacy and future vision.

Get on the ground and record your observations.



Key Project Metrics

- Key Outcomes identified as priorities for this project site were High Blood Pressure and Obesity
- Additional Key Outcomes identified for the Washington Metro area were Asthma, Cancer and Mental Distress
- Key Demographics identified were higher non-English speaking populations and neighborhood income inequality.
- Key Exposures identified as Extreme Heat and Flooding

Design Strategies

01. Low Carbon Materials

Prioritization of material reuse, salvaged materials and low or net-zero embodied carbon materials to reduce carbon emissions, addressing Extreme Heat and Flooding

02. Active Furnishings

To address High Blood Pressure and Obesity

03. Design for Disassembly

New wood ceilings and walls designed without glues and adhesives to reduce future carbon emissions, addressing Extreme Heat and Flooding

04. Neighborhood Density and Walkability

Located in a walkable area with many amenities to address High Blood Pressure and Obesity

05. Material Selection

Eliminate VOCs: specified to address Asthma and Cancer

Eliminate carcinogens: specified to address Asthma and Cancer

06. Smoke-Free Environment

To address Asthma and Cancer

Perkins&Will

About the Human Experience (Hx) Lab

The impact of buildings and urban design on human health and performance has been documented through more than forty years of scientific research. The Hx Lab integrates this human experience research into the design process to improve environmental quality, respond to human health emergencies, and ensure occupants are functioning optimally. We explore design strategies for diverse spaces including clinical, academic, and workplace using bespoke surveys and tailored sensor applications. With collaborations and cutting-edge tools, we are demonstrating the value of human-centered design.

The role of our Hx Lab in this research project is to provide a public health lens to this research. The lab works to contextualize key shocks and stressors and provide a deeper understanding of the physiological, social, and environmental impacts on community members.