Inclusive Healthy Places

A Guide to Inclusion & Health in Public Space: Learning Globally to Transform Locally

Gehl Institute

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Robert Wood Johnson Foundation

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About Gehl Institute:
Gehl Institute enables cities for people through knowledge creation that advances systemic change. A 501(c)(3) organization based in New York City and working globally, Gehl Institute's work makes people more visible in policy, design, and governance decisions about the public realm. In addition to developing research, the Institute designs compelling public programs that engage decision makers, industry influencers, researchers, and civic leaders on the importance of public life in their communities.

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Robert Wood Johnson Foundation Foreword

How healthy we are has a lot to do with where we live our everyday lives: where we work, learn, spend time with our families, and mix with each other in our shared public spaces.

At the Robert Wood Johnson Foundation, we have committed to building a Culture of Health, where everyone—regardless of where a person lives or how much money they make—has a fair and just opportunity to live the healthiest life possible.

Public places that promote health, trust, and inclusion are essential to that vision. Every community needs such places, where all feel welcome and where all can "enjoy being part of the great congress of humanity," as John Robert Smith, president and CEO of Reconnecting America, puts it.

Recognizing that good ideas have no borders, we decided to explore how communities around the world are designing and using their public spaces to improve the health and well-being of their citizens. We drew inspiration and ideas from cities like Copenhagen, Denmark, and Coimbra, Portugal, along the way.

We have been particularly fortunate in this endeavor to have Gehl Institute as our partner—to lead us on this global learning journey and to develop a framework to illuminate a path forward.

Good public spaces allow for healthy public life—for social interactions both planned and spontaneous on sidewalks or at bus stops, in parks, at street fairs, urban plazas, outdoor concerts, and art installations.

That's what this report is about. It is designed to bridge the fields of public health and community planning and design in new ways, with a focus on supporting inclusive healthy public spaces.

As we've seen in places like Copenhagen, these spaces don't just build themselves. They don't happen in a vacuum. We need to plan, create, refresh, and promote them, intentionally, with the involvement of an engaged community.

In Copenhagen, where bicycling is part of the culture, trash cans along bike routes are angled to make it easier for cyclists to dispose of their garbage. Trash cans also have small side shelves for recyclables so that people can retrieve bottles and cans and redeem them for cash without digging through garbage. These small details reflect not only a concern for safety and health but also for dignity, respect, and inclusion.

To be clear, the intersection of health and public space is not new to the United States, and there are many encouraging examples from New York City to Chattanooga, Tennessee, to Normal, Illinois. We still, however, have much to learn.

Our learning journey helped us to draw out key principles and build a usable framework for inclusive healthy places that we hope will accelerate momentum across US communities. It has engaged people from many backgrounds and sectors—from researchers to advocates to community developers to urban planners to leaders in social and environmental justice—because we know that improving opportunities for health and well-being for everyone requires working with those who think and act outside health.

We've learned that whether a project involves a riverside promenade, a new transit station, a small park, a neighborhood gathering place, or even a trash can, there are many ways to bring forward health, equity, and dignity in public places. Inclusion can be signaled in a collaborative process and through attention to detail and scale of design.

Our public places can help to unite us, and they can provide everyone with opportunities for good health.

We hope that you will take the principles described in this Framework and test them in your communities. Try them out, and please share your reactions with us. We know that this work is far from complete, and that there is still a great deal to learn as we travel this road together.

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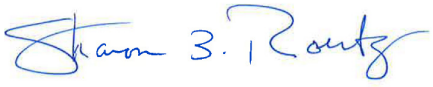

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Senior Program Officer, Robert Wood Johnson Foundation

Executive Summary

The Inclusive Healthy Places Framework

Place is integral to health. Our everyday environments play a fundamental role in shaping how healthy we are, as individuals and as communities. Where we live, work, and play has a lot to do with why some people are healthier than others, and can have a key role in determining why some people are not as healthy as they otherwise could be. A wealth of research demonstrates that place matters when it comes to health.

In practice, our most important shared places—our public spaces—continue to be planned and designed without considering all users or an entire range of well-being. There's no common framework; it's almost as though people in the fields of public health and urban planning and design speak different languages.

To bridge these gaps, Gehl Institute and the Robert Wood Johnson Foundation (RWJF), with a group of global advisors, have developed the Inclusive Healthy Places Framework ("the Framework," for short) as a tool for evaluating and creating healthy, inclusive public places that support health equity. The Framework and supporting analysis presented in this report represent a synthesis of research and expertise in public health and urban planning and design, focusing on those social determinants of health that can be viewed clearly through the lens of public space.

Public Space, Health Equity, & Inclusion

This work looks primarily at public spaces as those publicly accessible outdoor spaces that we encounter in our everyday lives and that offer distinct physical and mental health and well-being benefits to individuals and communities. These include streets, sidewalks, parks, plazas, parts of our transportation networks, and more. These are the spaces that support recreational physical activity, play, and active transportation; give us opportunities to meet and see others in our communities; provide us with access to nature and greenery; and more. Everyone has access or exposure to some form of public space.

However, not all public spaces are created equally or equitably—nor are the neighborhoods, towns, or cities that surround them. Indeed, the health disparities and inequities that this work is concerned with often track with such factors as access to and quality of available public spaces and degree of representation and participation in the process of shaping and maintaining public spaces. The Guiding Principles of Inclusive Healthy Places introduced in this report and in the Framework describe four distinct but interrelated areas in which public space intersects with health equity and inclusion. Inclusion itself is a complex concept that is challenging to define; it is not just the opposite of exclusion.

We present a working definition of inclusion as an outcome and a process—and as a tool for change.

Inclusion is an outcome: All people who use a public space feel welcome, respected, safe, and accommodated, regardless of who they are, where they come from, their abilities, how old they are, or how they use the space.

Inclusion is a process: Inclusionary public space processes recognize and respect the needs and values of people using the space and the assets present in a place, actively engaging and cultivating trust among participants, ultimately allowing all members of the community to shape, achieve, and sustain a common vision. This is a deliberate process that requires understanding of context and lived experience, among other factors.

Inclusion is a tool: As a tool, inclusion can help practitioners and communities reduce and ultimately eliminate health inequities stemming from long-term systemic discrimination and other barriers. Inclusion has the power to create real change—in practice, in process, and in people's lives.

Over time, with greater experience and implementation, we will expand our understanding and improve our tools for fostering inclusion as a means toward increasing health equity through public space.

Healthy inclusive public places can support health equity in many ways, including:

- Being both accessible and welcoming to all
- Reflecting shared social values such as dignity and respect
- Demonstrating the value of processes that promote trust and participation, particularly among marginalized groups
- Promoting vibrant and diverse social interaction
- Offering everyone opportunities to enjoy and use public space in diverse ways, such as for physical activity or relaxation
- Helping communities overcome barriers to better physical and mental health
- Supporting and sustaining the natural assets and strengths of a place and its people

Inclusion efforts at the intersection of public space and public health should focus on populations and neighborhoods that have experienced disenfranchisement and disinvestment or that have access challenges (e.g., wide intersections that are difficult for pedestrians to cross; neighborhoods that don't have enough parks).

A Conceptual Framework for Inclusion & Health in Public Space

The Framework is a guide for leveraging inclusion to advance health equity through public spaces. The Framework supports both action and evaluation. It may be used to inform the design, planning, and development of public space projects and to measure, assess, and communicate their impacts.

Instead of offering step-by-step instructions, we designed this Framework with the expectation that users will adapt and apply it to their work in different ways. The Framework demonstrates themes and connections that are essential to understanding health equity and public space and is a guide for leveraging inclusion to advance health equity through public spaces using a set of drivers, indicators, and metrics Opportunities for considering inclusion and health in public spaces abound at all levels and all scales within the Framework. We invite readers to approach this report with their own questions, public spaces, projects, and processes in mind.

The Framework aims to challenge—and change—traditional planning, design, and public health practice by offering guidance in:

- Creating public spaces designed to support inclusion, individual and community health, and health equity; and
- Building a field of practitioners across the disciplines and sectors that shape public space who put health and health equity at the center of their work.

A set of actors who are closest to this work include:

- Built environment practitioners, including planners, designers, policymakers, and others who are working to shape their communities by focusing on health and inclusion.
- Public health professionals and policymakers who are engaged in issues connected to place and the social determinants of health.
- Community leaders, directors of community-based organizations, advocates, and others who need evidence-based metrics to demonstrate the value of inclusionary processes and outcomes that leverage and build on local assets.
- Engaged community members and residents who bring vital knowledge and lived experience.

Cyclists commuting via Olafur Eliasson's Cirkelbroen (Circle Bridge) in Copenhagen (Photo: Steven Johnson, Boundless)

The Guiding Principles of Inclusive Healthy Places

We identify four guiding principles for shaping and assessing public space projects. Only one principle addresses physical space, reflecting the need for practitioners to look beyond physical designs and placemaking to create change. The context, process, and sustainability associated with public space design have to be considered.

Principle 1: Context

Recognize community context by cultivating knowledge of the existing conditions, assets, and lived experiences that relate to health equity.

Principle 1 Drivers:

A. Characteristics of People Present: Demographic characteristics of the impacted or local population.
B. Community Health Context: Snapshot of existing health at the community scale, including physical and mental health and well-being, socioeconomic health, environmental health, and housing conditions.
C. Predictors of Exclusion: Essential measures of inequality and indicators of discriminatory practices or experience.
D. Community Assets: Every place possesses assets on which to build, such as public space and transportation access and the presence of local and cultural institutions.

The drivers, indicators, and metrics of Principle 1 are all about establishing the existing or baseline conditions within a study area.

Principle 2: Process

Support inclusion in the processes that shape public space by promoting civic trust, participation, and social capital.

Principle 2 Drivers:

A. Civic Trust: Trust in public institutions and our neighbors can be measured by a suite of indicators, including rate and type of civic engagement (i.e., participation), degree of knowledge of public processes, and level of reported trust among community members.
B. Participation: Broad-based participation in publicly accessible events or programs, attendance at public meetings, and the degree of investment in participatory public processes and in stewarding public assets are all essential factors.
C. Social Capital: Strong social capital is an indicator of identity, ownership, and strong social networks, and can be enhanced through cultural diversity within a place as well as through cross-collaboration and acting with shared purpose.

Principle 2 focuses on developing an understanding of the depth of social relationships and the breadth of civic and public participation as factors contributing to shared ownership of public spaces and the effectiveness of advocacy for the public realm.

Principle 3: Design & Program

Design and program public space for health equity by improving quality, enhancing access and safety, and inviting diversity.

Principle 3 Drivers:

A. Quality of Public Space: Quality is a driver of use and a factor contributing to how much time people spend in a place, including for social and physical activities, as well as their level of comfort in and enjoyment and ownership of a space. We measure quality through a mix of observational and survey-based indicators to capture user experience—essential in planning with inclusion in mind.
B. Accessibility: The Framework uses *accessibility* to refer to both specific ADA and/or universal design elements for users with disabilities as well as to the physical accessibility of a public space for all users.
C. Access: Distinct from accessibility, *access* is a measure of how easily one might have the opportunity to use a public space.
D. Use and Users: Diversity of uses and of users—and evidence of social mixing among them—in public space are indicators of the social benefits of public space on health and well-being. Similarly, this driver accounts for users' level of physical activity in a specific space or more broadly.
E. Safety and Security: Safety can be measured objectively/observationally and through user perception.

The design, quality, and characteristics of a public space affect physical activity and use and determine a sense of inclusion for different groups of people in a place.

Principle 4: Sustain

Foster social resilience and the capacity of local communities to engage with changes in place over time by promoting representation, agency, and stability.

Principle 4 Drivers:

A. Ongoing Representation: The degree to which local stakeholders are represented in broad-based public processes and civic action indicates how well a community will retain control over what happens in the long term; similarly, the

degree to which diverse local stakeholders are represented as users of a public space over time indicates how well the space accommodates changing uses and groups.

B. Community Stability: Communities are dynamic, and measuring changes related to shifts in housing affordability and neighborhood economic conditions can inform an understanding of where local benefits of public space improvements are accruing.

C. Collective Efficacy: The efficacy of a community is measured by the value of its members' input as stakeholders in ongoing processes shaping public space and in the strength of social networks.

D. Ongoing Investment in Space: Presence of funding channels for public space maintenance or improvements, in addition to local capacity for care as stewards or volunteers, can demonstrate financial or sweat equity ownership of a public space.

E. Preparedness for Change: Adaptability is an essential capacity of both physical public spaces and of communities. Spaces that adapt to changing need, and communities that can assess their own needs as they change, are well-matched to see long-term benefits of inclusionary processes.

The indicators and metrics in Principle 4 measure how inclusion and health can be maintained in public spaces, and the communities they serve, over time.

Summary

To promote inclusion in public spaces, we must design, program, maintain, and evaluate public spaces with the knowledge that our differences affect our experiences, perceptions, and needs. We hope that users will layer the Framework's guiding principles, drivers, indicators, and metrics into their work in public health, planning, policy, design, engagement, and other areas of practice to promote better health outcomes.

Community outdoor yoga at Church Street Marketplace in Burlington, Vermont (Photo: Steve Mease via Churchstreetmarketplace.com)

Introduction

Introduction

In Copenhagen, Denmark, Folkets Park is a true "people's park" designed for all the people in the neighborhood to enjoy, regardless of whether they're parents with young children, elderly people longing for fresh air and a bit of comradery, teens looking for a safe place to hang out, or a group of men who prize their privacy in the park they consider their living room.

The latest renovation of the park several years ago was more than just another community development project. It set out to create social change by engaging people from different walks of life with the goal of helping all to feel safe and comfortable while sharing a public space. This approach required the leaders of the project, an artist and an urban planner, to get the perspectives of all the people using the park—and engage them in a process of identifying their shared values and interests.

That's how, for example, instead of brightly illuminated pathways at night, Folkets Park wound up with soft, carefully located lighting. Homeless people who used the park worried that traditional flood lighting would make them vulnerable. The project leaders listened to them and came up with a solution that addressed these concerns while ensuring park safety for other users who had different concerns about visibility. The finished park design also includes features for creative play for all ages, a shade and weather shelter, a new restroom facility, ping-pong tables, and rolling grassy areas. Each of these features required thoughtful and careful design. But by considering how the space could be both inclusive and healthy, the park designers worked with community members to achieve a far more holistic public place. The Folkets Park project shows how, when designing healthy places, inclusion can be a goal, a process, and a result.

Inclusive Healthy Places & the Culture of Health

Place is integral to health.[1] Our everyday environments play a fundamental role in shaping how healthy we are, as individuals and as communities.

Yet, typically, we give little thought to the impact of public spaces on health. Research is thin, and, in practice, spaces

Community design in action at Folkets Park, Copenhagen (Photo: Steven Johnson, Boundless)

Creative play at the center of a multi-purpose space in Folkets Park, Copenhagen (Photo: Steven Johnson, Boundless)

continue to be planned and designed without considering all users, or an entire range of well-being. There's no common framework; it's almost as though people in the fields of public health and urban planning and design speak different languages. Small wonder, then, that they seldom work together to create inclusive and healthy public spaces.

To bridge these gaps, Gehl Institute and the Robert Wood Johnson Foundation (RWJF), with a group of global advisors, have developed this Inclusive Healthy Places Framework ("the Framework," for short), as a tool for creating inclusive public places that support health equity. A place that supports health equity helps reduce and ultimately eliminate disparities in the controllable or remediable aspects of health.

RWJF is dedicated to building a Culture of Health in The United States where all people—regardless of their circumstances—have the opportunity to live the healthiest life possible. Health equity is essential to this vision. As part of its quest to build a national Culture of Health, the Foundation invests in learning how other countries have created large-scale change to improve health and well-being and in studying how those models might work here. This global search for ideas and solutions has helped shape development of the Framework. It is our hope that a broad, global audience of practitioners will use this approach to measure, understand, and promote health equity and inclusion through public space in a variety of cultural contexts.

The Framework represents a new way of looking at the connection between health and public space and then leveraging that connection to create places that restore advantage to populations that have been overlooked or excluded. It is an evolving field. With greater experience and implementation, we will expand our understanding and improve our tools for increasing health equity through public space.

Place Influences Health

Where we live, work, and play has a lot to do with why some people are healthier than others and can have a key role in determining why some people are not as healthy as they

otherwise could be.[2] A wealth of research demonstrates that place matters when it comes to health.

Place—the broader physical and social environment where we lead our lives, both in and outside our homes and workplaces—influences our likelihood of becoming or staying sick with chronic conditions and of developing certain diseases within our communities. The physical and social characteristics of our environments influence our ability to access and benefit from safe streets, great urban parks, quality transportation networks, meaningful public engagement, and more—making us more or less physically active and socially engaged.

Both the physical and social factors, or determinants of health, are important for us as we consider the role of place in health and well-being. The quality of our air, water, and food are determined by geography, development, surrounding infrastructure, and more. Place determines, to an important degree, our susceptibility to mental health issues like anxiety or depression, influenced by factors as wide-ranging as urban stressors or the presence of greenery near our homes. Where we live affects the quality of our schooling, our likelihood of being involved in the judicial system, and our access to economic opportunity over the long term. Day to day, factors like the number of social interactions we experience or the number of minutes we spend using active forms of transportation become the building blocks of good health.

The factors that influence our individual health outcomes tend to concentrate health issues at the community scale, while community-level health issues also have an impact on the individual.[3] For example, the correlation between life expectancy and ZIP code is well-documented,[4] reflecting glaring disparities in health outcomes from neighborhood to neighborhood. Local life expectancy is affected by a range of considerations, including wealth, housing quality, availability of safe outdoor spaces for physical activity, and the level of social cohesion and trust we feel in our communities.

How important are these indicators of health? Research shows that clinical care accounts for only approximately 20 percent of health outcomes, while up to 80 percent of health is determined by environmental and behavioral factors.[5] These factors are *social determinants of health*.

Social determinants of health are important because these are factors that we, as individuals and as a society, have the power to change and improve.

Public Space, Inclusion, and Health Equity

How do public space, inclusion, and health equity interact? The answer depends on how we understand these terms. A *public space* is an accessible, shared physical space where people can socialize, exercise, play, relax, volunteer, buy and sell goods and services, make connections, express their political views, appreciate art or architecture, or simply enjoy being outdoors.

Public space is made up of the spaces that shape our everyday experience in our neighborhoods and communities: sidewalks and public squares, parks and other green spaces, and spaces that are part of our transportation networks, including everything from streets and bike lanes to bus stops and rail stations.

For this work, we further define public spaces as those primarily outdoor spaces that do not require special access—such as keys, admission fees, or membership. Outdoor public spaces offer physical and mental health benefits that are distinct from those of indoor public or civic facilities and institutions, such as libraries, schools, government buildings, and recreation facilities. Virtually everyone will pass through or look out on an outdoor public space every day. Inclusion, both within these spaces and in the processes used to develop them, is central to addressing health disparities and ensuring that people with disadvantages are not left behind. Indeed, disparities in serious health challenges, including lack of physical activity, social isolation, and environmental exposure, are influenced by the level of inclusion in public space and community life.

Inclusion is a complex concept and difficult to define. It is not the opposite of exclusion. It is an outcome and a process, and it can be used as a tool for change.

As an outcome, inclusion means that all people who use a public space feel welcome, respected, safe, and accommodated—regardless of who they are, where they come from, their abilities, how old they are, or how they use the space.

As a process, inclusion recognizes and respects the needs and values of people using the space as well as the assets in the place—even historical ones. It actively engages people and cultivates trust among them and in the process of engagement and creation. Ultimately, it allows all members of the community to shape, achieve, and sustain a common vision for the space.

It's a deliberate process that requires an understanding of each place's demographic, socioeconomic, health, and historic context. We build this understanding by seeking out local expertise, experience, participation, and representation.

We offer a working definition of inclusion as the leveraging of resources (such as power, time, and money) and assets (social, cultural, and physical) to continuously reduce and eliminate systemic barriers to access, focusing on underserved and historically overlooked or excluded populations.

However, it is not our intention to establish a rigid

definition of inclusion. Rather, we have developed the Framework to organize core themes and research as a support for practitioners in planning, design, and health who are working to advance health equity in public realm projects. We hope that this Framework will demonstrate to these practitioners the value that inclusion brings to the field—and to communities.

Not to be confused with equality, *health equity* means recognizing that everyone has different needs for good health and ensuring that those needs are met. It also means removing all barriers to good health—not just lack of medical insurance or ability to get medical care, but barriers like lack of access to good jobs with fair pay, quality education, healthy foods, safe environments, opportunities for recreation and socializing, and quality, affordable housing. In the end, everyone must have the basics of what they need to be healthy.

Because we want practitioners to use the Framework as a tool for promoting health equity through public spaces, the Framework is somewhat more focused on inclusion as a process for achieving that important goal, rather than as an outcome unto itself. There is no standard or benchmark for achieving inclusion; we don't want to be prescriptive about inclusion as an outcome. Inclusion may look somewhat different in different places, depending on the local needs and values.

Successful inclusive processes increase the diversity of users, the level of quality, and the degree of accessibility of a public space. In the longer term, inclusion can foster social resilience, or the ability of a group of people to adapt to stresses in the social, economic, or physical environment.

When used as tool for change, inclusion can help practitioners and communities reduce health inequities stemming from long-term systemic discrimination and other barriers. Inclusion can be a lever of change—in practice, in process, and in people's lives. Healthy, inclusive public places can support health equity in many ways, including:

- Being both accessible and welcoming to all
- Reflecting shared social values such as dignity and respect
- Demonstrating the value of processes that promote trust and participation, particularly among marginalized groups
- Promoting vibrant and diverse social interaction
- Offering everyone opportunities to enjoy and use public space

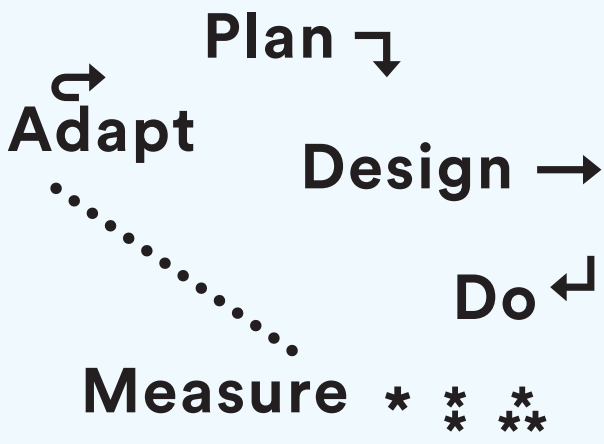
Social dancing on Malmö, Sweden's recently renovated waterfront promenade (Photo: Steven Johnson, Boundless)

in diverse ways, such as physical activity or relaxation
- Helping communities overcome barriers to better physical and mental health
- Supporting and sustaining the natural assets and strengths of a place and its people

Inclusion efforts at the intersection of public space and public health should focus on populations and neighborhoods that have experienced disenfranchisement and disinvestment or that have access challenges (e.g., wide intersections that are difficult for pedestrians to cross; neighborhoods that don't have enough parks).[6]

A Conceptual Framework for Inclusion & Health in Public Space

This Framework is a guide for leveraging inclusion to advance health equity through public spaces using a set of *drivers*, *indicators*, and *metrics*. You may use the Framework to plan, design, implement, and evaluate the context, process, and outcomes and effects of interventions and programs in public spaces.[7] These interventions and programs range from new park designs to citywide health evaluations. Opportunities for considering inclusion and health in public spaces abound at all levels and all scales.



Act, Evaluate, Adapt

To create inclusive healthy places, practitioners should adopt a process that incorporates a cycle of action, evaluation, and adaptation. Public spaces are dynamic, as are the communities who use and depend on them. Inclusion and health equity are moving targets, and our approaches to project and program planning and implementation should be responsive to changing needs and to testing methods to achieve better outcomes.

The Framework guides both *action* and *evaluation*. It may be used to inform the design, planning, and development of public space projects and to measure, assess, and communicate their impact. Instead of offering step-by-step instructions, we designed this Framework with the expectation that users will adapt and apply it to their work in varied ways. As such, the Framework aims to challenge—and change—traditional planning, design, and public health practice by offering guidance in:

- Creating public spaces in ways that support inclusion, individual and community health, and health equity; and
- Building a field of practitioners across the disciplines and sectors that shape public space who put health and health equity at the center of their work.

The Framework identifies themes and connections that are essential to understanding health equity and public space. As mentioned earlier, inclusion is highly contextual; there is no turnkey solution or gold standard benchmark. As the Framework makes clear, there are many ways to use inclusion as a driver of health equity in public space projects.

Guiding Principles for Mobilizing Inclusion in Practice

The Framework proposes a set of interconnected drivers, indicators, and metrics to help practitioners build inclusion into their public space projects, use it to increase health equity, and assess its effects.

The Framework offers four guiding principles for shaping and assessing public spaces.

Principle 1: Context

Recognize community context by cultivating knowledge of the existing conditions, assets, and lived experiences that relate to health equity.

Principle 2: Process

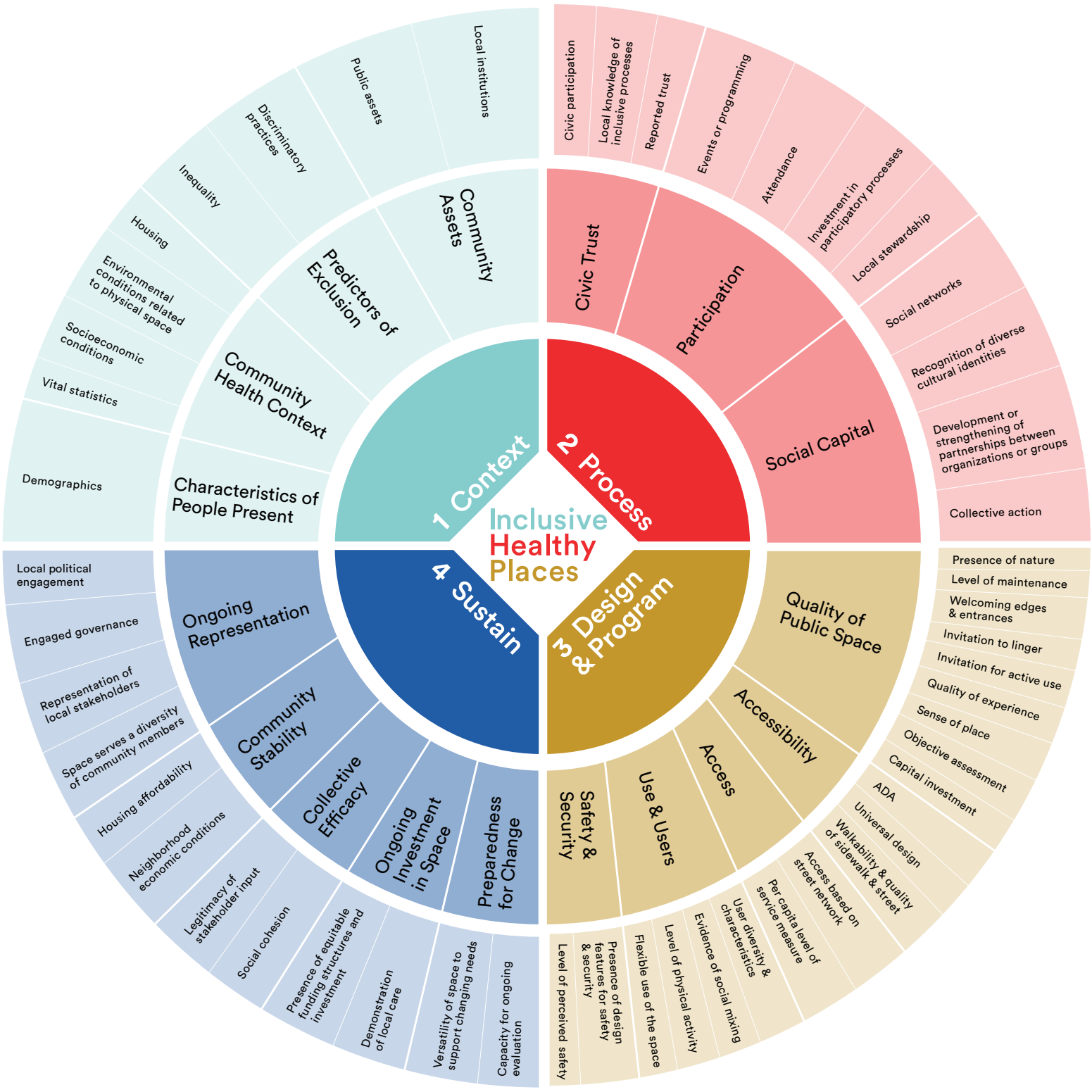
Support inclusion in the processes that shape public space by promoting civic trust, participation, and social capital.

Principle 3: Design & Program

Design and program public space for health equity by improving quality, enhancing access and safety, and inviting diversity.

Principle 4: Sustain

Foster social resilience and capacity of local communities to engage with changes in place over time by promoting representation, agency, and stability.


Inclusive Healthy Places
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2 Process
3 & Design Program
4 Sustain
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Community Health Context
Characteristics of People Present
Local institutions
Public assets
Discriminatory practices
Inequality
Housing
Environmental conditions related to physical space
Socioeconomic conditions
Vital statistics
Demographics
Civic Trust
Participation
Social Capital
Civic participation
Local knowledge of inclusive processes
Reported trust
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Attendance
Investment in participatory processes
Local stewardship
Social networks
Recognition of diverse cultural identities
Development or strengthening of partnerships between organizations or groups
Collective action
Quality of Public Space
Accessibility
Access
Use & Users
Safety & Security
Presence of nature
Level of maintenance
Welcoming edges & entrances
Invitation to linger
Invitation for active use
Quality of experience
Sense of place
Objective assessment
Capital investment
ADA
Universal design
Walkability & quality of sidewalk & street
Access based on street network
Per capita level of service measure
User diversity & characteristics
Evidence of social mixing
Level of physical activity
Flexible use of the space
Presence of design features for safety & security
Level of perceived safety
Ongoing Representation
Community Stability
Collective Efficacy
Ongoing Investment in Space
Preparedness for Change
Local political engagement
Engaged governance
Representation of local stakeholders
Space serves a diversity of community members
Housing affordability
Neighborhood economic conditions
Legitimacy of stakeholder input
Social cohesion
Presence of equitable funding structures and investment
Demonstration of local care
Versatility of space to support changing needs
Capacity for ongoing evaluation

Audiences & Cross-Sector Collaboration

Fostering health equity requires collaboration across sectors, fields, scales, and geographic areas. Our ambition is that the Framework will assist practitioners from a range of professional backgrounds (government, planning, design, and public health from both the public and private sectors) to engage in new forms of collaboration.

A set of actors who are closest to this work include:

- Built environment practitioners, including planners, designers, policymakers, and others who are working to shape their communities by focusing on health and inclusion.
- Public health professionals and policymakers who are engaged in issues connected to place and the social determinants of health.
- Community leaders, directors of community-based organizations, advocates, and others who need evidence-based metrics to demonstrate the value of inclusionary processes and outcomes that leverage and build on local assets.
- Community members and residents who bring vital knowledge and lived experience and should be integrally involved with every partnership or effort to plan for our shared resources—not just in situations where equity or inclusion are express policy goals.

We hope that the Framework will help these groups develop a common language that supports collaboration. Public health professionals can use the Framework to identify connections among aspects of public spaces, the processes that shape them, and key social determinants of health. Practitioners of public space planning and design, including community-based leaders and advocates, can use the Framework to understand and measure the impact of public space interventions on health.

Context & Scale of Inclusive Healthy Places

The Framework is meant to be flexible. It is intended for use in a range of urban, suburban, urban fringe, and rural town centers. However, some indicators and measures will be best applied in areas with larger or denser populations, and most of the research underpinning the Framework was developed in urban contexts. The research base also draws on studies carried out in contexts around the world; we hope that the Framework can have value across cultural contexts. The Framework may be used to address spaces of all sizes and scales—from plazas and main streets to full neighborhoods or regional parks. The Framework can be applied at scales right down to individual design details.[8]

Public Space	Neighborhood	City	Regional/National
– Street and sidewalk/ plaza redesign – Community garden project – New waterfront access area or esplanade – Lighting on a sidewalk – Events held on a square/ in a street – Improvement to a public transit entrance – Community park design-build project	– Renewal program for an urban district – New bike lane connections on a street network – Construction of a regional destination waterfront park – Day worker meeting site – Main street revitalization or redesign – Installation of street lighting fixtures – New friends-of-park group formation – Food distribution area	– Public space network plans – Resiliency strategy for urban waterfront parks – Mobility plan – Bus rapid transit or light rail corridors – Bikeshare network stations or bike racks – Zoning for access to healthy food stores – Active design guidelines – Mental health awareness campaigns – Environmental justice campaign	– Congestion-pricing policy – Walk-to-work policy initiative – Large-scale rails-to-trails project – Regional economic development strategy – Public land conservation plan – Environmental cleanup project – National 10-minute walk-to-a-park goal – Regional health framework plan

Public space shapes our health in different ways. Here, the open, playful design of Copenhagen's harbor front invites physical and social activity for all ages and provides a sense of identity. (Photo: Steven Johnson, Boundless)

What's Inside

This report includes both the Framework and supporting research, organized in two main sections, with a short appendix.

Introduction
Establishes background context, need, and audience to ground the report and the Framework.

Guiding Principles
Introduces each guiding principle for inclusive healthy places; discusses the themes, research, and theory needed to understand the Framework's drivers and indicators; and offers sample questions for connecting the principles for inclusive healthy places with research and practice.

Inclusive Healthy Places Framework
Presents a detailed matrix of drivers, indicators, and metrics with research citations. The content is organized according to the guiding principles.

Appendix
Contains essential project background, methodologies and definitions, as well as other essentials for practitioners using the Framework.

We invite you to approach this report with your own questions, public spaces, projects, and processes in mind. As we hope you'll see, there are numerous opportunities to shape public space in ways that contribute to greater inclusion and achieve better health for everyone.

Footnotes: Introduction

1. Physical and mental health status and well-being, as distinguished from health care. Paula Braveman et al., *What Is Health Equity? And What Difference Does a Definition Make?* (Princeton, NJ: Robert Wood Johnson Foundation, 2017), https://www.rwjf.org/en/library/research/2017/05/what-is-health-equity-.html.

2. "Social Determinants of Health," *Healthy People 2020*, Office of Disease Prevention and Health Promotion, accessed May 31, 2018, https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health.

3. The connection, for example, between poverty and health is both at the individual and community level. People's health is affected by the general level of affluence of the community in which they live, not just by their own income.
John W. Seavey, "How's your health? What's your zip code? Poverty and health," *University Dialogue* 42 (2008), http://scholars.unh.edu/discovery_ud/42.

4. Sabrina Tavernise and Albert Sun, "Same City, but Very Different Life Spans," *New York Times*, April 28, 2015, https://www.nytimes.com/interactive/2015/04/29/health/life-expectancy-nyc-chi-atl-richmond.html.

"Does where you live affect how long you live?" Robert Wood Johnson Foundation, accessed May 31, 2018, https://www.rwjf.org/en/library/interactives/whereyouliveaffectshowlongyoulive.html.

5. Steve Teutsch, "Getting to Average Life Expectancy: It Takes Commitment," *American Journal of Public Health* 108, no. 1 (January 2018): 17.

6. Howard Frumkin, "Guest Editorial: Health, Equity, and the Built Environment," *Environmental Health Perspectives* 113, no. 5 (May 2005): A290–A291.

7. An evaluation framework is a practical tool to summarize and organize the components of program evaluation.
"A Framework for Program Evaluation," Program Performance and Evaluation Office of the Centers for Disease Control and Prevention, accessed December 22, 2017, https://www.cdc.gov/eval/framework/index.htm.

8. The Framework was developed primarily for the US context, with global influences among the cases, best practices, inspiration, and literature-based research.

Guiding Principles

Guiding Principles

The Inclusive Healthy Places Framework is built around four guiding principles for shaping and assessing public space projects. Only one principle addresses physical space, reflecting the need for practitioners to look beyond physical designs and placemaking to create change. Additional knowledge, practices, processes, and policies are necessary to support inclusion and health.

The guiding principles are four distinct yet interrelated concepts that integrate inclusion and health equity into the analysis, planning, design, programming, and sustainability of public spaces.

These themes often overlap. For example, indicators of civic trust, an essential component of inclusion in democratic design, helps to demonstrate the strength of local social networks (Principle 2) and are connected to the level of social cohesion contributing to community stability (Principle 4). Likewise, the quality of a public space and level of perceived safety (Principle 3) influence both how it is used (Principle 3) and how much it is used (Principle 2). Funding for maintenance and care of a public space (Principle 4) may benefit the community, but the degree of that benefit will be influenced by factors such as the representative participation of local residents and stakeholders in deciding how that funding is invested (Principle 2).

These examples illustrate and help explain why we are not presenting this Framework as a how-to handbook for promoting inclusion or health. The outcomes and impacts of public space practice (planning, programming, designing, building) will vary, based on the context, so there are no universally prescribed steps for achieving health equity and improving community health. Instead, we recommend thinking about how the guiding principles align with the challenges or objectives of a particular place or project and "layering in" the relevant components.

Nor is it our intention to establish standards or benchmarks for inclusive healthy places. However, we hope that, with continued application and testing of the guiding principles and the Framework, new best practices will emerge for measuring impact and progress toward inclusion and health equity.

A project of Mexico City's public planning innovation office, Laboratorio para la Ciudad, Peatoniños uses creative youth engagement strategies to raise pedestrian safety awareness. Here, a street festival in Iztapalapa, Mexico City. (Photo: Laboratorio para la Ciudad via Flickr)

Finally, we do not intend to impose an outside perspective on local projects. These measures are about understanding and demonstrating the value of place to promote health equity and social inclusion and integrating that value into all aspects of planning, shaping, assessing, and using inclusive, healthy public spaces.

We present the guiding principles to help practitioners see possible "ways into" the Framework.

Principle 1: Context

Requires an assessment of the preconditions and baseline data in a place and is especially geared toward researchers, professionals in statistical data or public health departments, or anyone beginning a design, plan, or evaluation of a public space. Principle 1 speaks to the need for background data to understand the context of a place or community and set appropriate goals for inclusionary practices.

Principle 2: Process

Focuses on social and process indicators of trust, participation, and other drivers of inclusion and health in place. It may be most relevant to policymakers and practitioners who work directly with people to advocate for, plan, design, and sustain more inclusive healthy places.

Principle 3: Design & Program

Centers on the physical aspects and design of places and may serve as a checklist for architects and urban designers, in addition to researchers investigating correlations between place and health equity. The metrics may serve as a tool for architects and urban designers as well as for researchers investigating correlations between place and behavioral health outcomes.

Principle 4: Sustain

Stresses social resilience and capacity building, which will benefit community residents and the long-term work of strategic planners, policymakers, politicians, advocates, and community leaders and organizations.

We developed these guiding principles from a research process that included extensive expert interviews (see Appendix), site visits and tours, a global practice scan, and additional secondary research reviews. The following sections describe the Framework's structure by highlighting the key findings and considerations that form the research basis for each of the four guiding principles.

North Philly Peace Park is an open, intergenerational, neighborhood-maintained space for gardening, education, and other programming (Photo: Gehl Institute)

Patricia's Green in Hayes Valley, San Francisco is the result of community fight to turn the Central Freeway into public a space. (Photo: Jennifer Gardner)

A temporary sandy beach installation in downtown Detroit's Campus Martius Park gathers people around unexpected design. (Photo: Michigan Municipal League via Flickr)

Principle 1: Context

Recognize community context by cultivating knowledge of the existing conditions, assets, and lived experiences that relate to health equity.

What does this component of the Framework do?

- Helps practitioners and researchers identify baseline conditions relevant to health equity in context of place.
- Establishes a snapshot of key health status factors at the community scale.
- Provides an assessment of systemic inequities and root causes of community health challenges.
- Guides users in identifying community assets (physical, social, economic, political) that reflect local trends, history, and needs.
- Is especially geared toward researchers, professionals in statistical data or public health departments, community advocates, or anyone beginning a design, plan, or evaluation of a public space.
- Is useful for arming advocates, identifying appropriate strategies, and in raising awareness around the conditions that created or attributed to existing health disparities.

Principle 1 establishes the baseline conditions of a specific place or community.[9] As discussed, context is key to using inclusion to advance health equity in public spaces. Contextual factors need to be considered and addressed when developing inclusive practices.[10]

The Importance of Context & Lived Experience

In this principle, we recommend using a context-specific, locally defined approach to understanding baseline conditions, local assets, and lived experiences that can inform the project at hand. With strong background data, practitioners can measure impact against an informed understanding of what inclusion and health mean in *this* place.

We wish to stress that it is essential that practitioners coming from outside a community (e.g., government, design consultants, national nonprofits, academic researchers) seek and prioritize the expertise and experience of stakeholders in a place—from established organizations to everyday citizens. For a process or outcome to be truly inclusive, meaningful partnerships are essential. In gathering background data about context, many embedded community organizations and individuals already own this information. In particular, they are the only reliable source of qualitative feedback on lived experience.

The indicators and metrics in Principle 1 may be used to measure baseline conditions related to social determinants of health. They focus on people and their environment. In addition, we recommend using indicators to build an understanding of predictors of exclusion present, as well as the presence of community assets, to better understand demographic and community health data. These indicators can help contextualize other relevant data gathered about a project as well.

Throughout the Framework, we include indicators and metrics that can be used to measure lived experience or self-reported data. In referring to lived experience, we acknowledge the value of local people's insights into their own health assets and challenges and related factors. For example, it's not useful to tell people to eat better and exercise to reduce diabetes when they have no solutions to challenges such as lack of access to supermarkets that offer healthy foods or to parks or other public recreational spaces.[11]

Public parks officials and children break ground at Longfellow Playground in New York City's South Bronx. The project was a part of the Community Parks Initiative, a citywide effort to reinvest in the open spaces serving low-income neighborhoods, and to bring a greater degree of public engagement into the design process. (Photo: NYC Parks)

Understanding the People in a Place

It is important to know the demographic characteristics of the people in a place of interest. Demographics are statistical data for a defined population or groups within it and include gender, age, race and ethnicity, status of homeownership or tenure, marital status, household income, rate of poverty, country of birth, etc. Demographic data on a place of interest can inform practitioners about key factors related to inclusion—for example, whether people participating in a public engagement are representative of the broader community. Furthermore, demographic analysis can identify important determinants of poor health and health inequity, such as relative concentrations of poverty, degrees of racial segregation, aging populations, low rates of educational achievement, or other indicators of population-level health risk.

From a perspective of inclusion, demographic baseline data can also shape an understanding of who that space serves. "Inclusion means facilitating well-being as defined by *who*; we need cities where everyone can reach their potential and make a contribution in whichever way they want to," according to Layla McKay, Director of the Centre for Urban Design and Mental Health.[12]

Over time, changes in demographics can also help communities tell the story of changing local needs and preferences.

Health Context and Health Equity Goals

Our definition of *health context* is broad. The Framework incorporates a range of community and population vital statistic metrics, such as rates and causes of morbidity and mortality, and many important socioeconomic and physical environmental factors that affect health. Combined, these factors constitute "health context," which tells a story of how place may shape health challenges, risks, and opportunities.

Indeed, health equity goals need to be context-specific and locally defined, because lived experience and health risks are influenced by place. Who we are (e.g., our genes), where we are, and our accumulated experiences and exposures to health risks and benefits in our environments determine our health, both on an absolute scale ("Is my own health the best it can be?") and relative to others ("As a group, how does our health compare to that of other groups?").

Environmental health challenges naturally intersect with the built environment and public space. For example, air, water, and noise pollution can have substantial effects on community mental health, as well as physical health. Living near major roads or airports increases exposure to traffic noise and pollution and is associated with higher levels of stress and aggression.[13] Health inequities in cities are often rooted in residential segregation and uneven access to community resources, assets, and services, as well as uneven exposure to harmful industrial activity. For example, an estimated 22 million Americans suffer from asthma, which is triggered by various environmental factors, including air pollution, allergens, exercise, stress, certain chemicals in the workplace, etc.[14] Asthma rates vary greatly from neighborhood to neighborhood but disproportionately affect communities of color and low-income communities.[15]

These kinds of disease triggers may be reduced through greater access to open, green spaces that offer opportunities to walk, mingle with others, and enjoy nature without noise and other urban stressors. Research has found that children living within one kilometer (0.6 miles) of a park or playground are five times more likely to have a healthy body weight,[17] demonstrating in one way how essential equitable access to public space can be to health.[18]

These are just a handful of statistics representing a growing body of knowledge on how our shared and public built environment can influence individual and community health; additional metrics may be found under Principle 1 in the Framework. Practitioners interested in advancing community health should expand their understanding of basic demographics to help identify gaps and barriers to good health, as well as local conditions that drive social inequalities in health.[18]

Predictors of Exclusion

Achieving health equity requires getting at the root causes of health disparities (differences in health outcomes) and inequities (systemic differences in access to the resources and opportunities required for optimal health). Numerous factors contribute to place-based health inequities. This work focuses on key predictors of exclusion, supported historically by policies and practices that have perpetuated inequality. Specifically, we recommend assessing indicators of economic inequality and discriminatory practices within the community.

"Longstanding and rising income inequality, combined with a history of racial residential segregation, has led to startling health inequities between neighborhoods," notes New York City Health and Mental Hygiene Commissioner Mary Bassett, MD. "Poor health outcomes tend to cluster in places that people of color call home and where many residents live in poverty."[19]

A significant and compelling body of research demonstrates that economic opportunity is a leading determinant of health and longevity; disadvantage drives health disparities.[20] Living in poverty limits healthy lifestyle choices and makes it difficult to access health care and other resources that promote health and prevent illness.[21]

For example, research shows that physical inactivity contributes to health inequity across certain groups. Black and Hispanic adults, older adults, less educated adults, and adults living at or near the poverty line are less likely to meet physical activity guidelines than other groups.[22] Other US-based research connects historically underserved populations—African American, American Indian, Hispanic, Asian American, and Pacific Islander cultures—to lower activity levels, which is a major risk factor for obesity and other chronic conditions. These same populations often have limited opportunities for physical activity in their communities.[23] Local environments also affect the eating and activity habits of residents. Obesity and related chronic diseases, such as diabetes and heart disease, are most prevalent among low-income persons of color.[24]

Access to high-quality green spaces, including playgrounds and parks, can help to rebalance these outcomes. Populations exposed to the greenest environments have the lowest levels of income-related health inequality, demonstrating that physical environments that promote good health may help reduce socioeconomic health inequalities.[25] Drivers and indicators of park use and access are discussed in more detail under Principle 3.

Poverty and health are connected at both the individual and community levels. A person's health is affected by the affluence of the community where she lives, not just her own income. Although discriminatory practices and policies that isolate racial and ethnic groups may not reduce the economic capital of all members of those groups, the health effects of exposure to inequality within a society may be significant.[26]

Practitioners working at all scales, from the grassroots up, can learn from the lived realities of discrimination.[27] Historical oppression and trauma associated with public space and policies must be acknowledged as part of a community's lived experiences.[28] Of course, overcoming institutionalized exclusion requires work beyond public space and health equity.

Every Community Has Assets

Finally, recognizing community context should also take an asset-based approach that identifies, acknowledges, and builds upon opportunities and strengths in a place. Place-based assets may take many forms. People are an obvious though often overlooked asset; they offer both individual and shared experience and expertise. Inclusive practice should involve dialogue on how the public space will be used collectively and on the shared benefits arising from that use.[29]

There are also more formal types of assets and resources that can be useful to acknowledge and engage with in public space–shaping processes. For example, it is important to understand how local institutions support opportunities in building

Bogotá, Columbia is where the Ciclovía originated, over 40 years ago. Today, streets close to bicycles every Sunday. (Photo: Carlos Felipe Pardo via Flickr)

Adapted to other contexts, the Ciclovía takes on new character. Here, cyclists take to Los Angeles' downtown streets. (Photo: Jennifer Gardner)

Slow Roll Detroit is a leisurely weekly bike ride meant for all ages and abilities that regularly gathers over 3,000 participants. (Photo: Flickr user Russ)

and maintaining social relationships, a core community asset and component of social capital.[30] Local institutions like churches, libraries, schools, hospitals, cultural organizations, community garden groups, and more may serve as forums and resources for people to discuss health and healthy choices and as places to connect with one another.

There are often opportunities to collaborate across sectors to leverage community assets. Professional perspectives and community-based knowledge and expertise can operate hand in hand. For example, professional planners and designers can offer technical support to community efforts to plan and evaluate public spaces.[31]

Sample Research Questions for Principle 1

- How can detailed and specialized data about community health across a city/region inform design, planning, and program interventions?
- How can local health drivers and amenities be tapped to address the needs of people of all ages and socioeconomic circumstances?
- What are key community assets supporting health, economic well-being, and public space?
- How do different forms of inequality correlate with access to open space resources and with community health?
- What evidence is needed to determine whether or how a public project or policy helped improve community health outcomes?

Local identity can be expressed through programming as well as design. Five Points Plaza, a transformed vacant lot in Charlotte, North Carolina (Photo: Cherie Jzar)

Principle 2: Process

Support inclusion in the process that shapes public space by promoting civic trust, participation, & social capital.

What does this component of the Framework do?

- Establishes the basic ingredients for social inclusion in public processes through indicators of civic trust, civic or other types of participation, and social capital.
- Acknowledges systemic exclusion as a barrier to inclusion and identifies numerous opportunities for inclusion.
- Aims to demonstrate the impact of strong local networks, grassroots and community-based engagement, advocacy, planning, and programming.
- Captures the value of social capital as an observable measure or outcome of an inclusive process.
- Serves as a point of access to the Framework for policymakers and practitioners who work directly with people to advocate for, plan, design, and sustain more inclusive healthy places.

Inclusion is as much about the process as the finished product.[32] Public space can support healthy social outcomes, such as high levels of civic trust associated with "neighborliness," large turnouts for community events and programs, or a strong sense of community ownership for a shared space. Public spaces can be important sites for the formation and growth of social capital within communities. Research shows that these qualitative characteristics are also measurable outcomes of social inclusion with health equity.

Changing a physical space will not necessarily change underlying social structures or enable inclusion or equity. Dialogue and direct engagement must be part of the process that creates the space; they are essential to sustaining or strengthening a community's sense of belonging.[33] This Framework defines that sense of belonging as a combination of civic trust and community ties, both of which are challenged by the many processes that shape the context of our neighborhoods.

Principle 2 proposes examining how processes and systems that shape public spaces can promote or have promoted inclusion and healthy equity from the perspective of trust, participation, and structural barriers.

Civic Trust and Inequality Are Linked

Civic trust reflects the degree to which people feel they can participate meaningfully in their communities through voting and activities such as community organizing and joining community groups.[34] Civic trust is built on strong social ties and networks and can be measured using indicators of civic participation such as voter turnout, knowledge of public processes, and self-reported levels of trust and social contact.[35]

Trust among people within a network can enhance that network's effectiveness: "Social associations by themselves are expected to be an important foundation for civic engagement, but their positive impact on participation in collective action effort is expected to be even greater among those people who believe people are trustworthy."[36] Where rates of civic participation, knowledge, and trust in neighbors and institutions are high, civic trust grows and can drive greater inclusion and equity in public and civic processes.

Conversely, segregation and inequality have demonstrated effects on civic trust. In his seminal text *The Truly Disadvantaged*, William Julius Wilson describes *concentration* effects as the cumulative disadvantages of residents living in racially segregated urban areas.[37] Systemic conditions may increase segregation and inequality and affect opportunities for participation in a place. This can lead to the exclusion of certain groups and reinforce barriers to health. In the US and other countries, structural racism involves interconnected institutions whose linkages are historically rooted and culturally reinforced.[38] Examples of institutional racism include discriminatory policies and practice carried out by state and other institutions that perpetuate systemic inequities.[39]

The San Francisco Indicator Project finds that segregated neighborhoods have fewer institutional assets (schools, libraries, public transit), the lack of which may erode civic trust.[40] Meanwhile, segregated low-income neighborhoods host more than their fair share of power plants, solid and hazardous waste sites, bus yards, and other such public facilities. Indeed, place often is the point of conflict between various agendas, wherein underserved communities are pushed to the margins.[41] Take, for example, the ongoing residential segregation of African Americans through housing, economic, and other policies that shape health, as reflected through higher levels of exposure to air pollution, incidence of chronic disease, and lower access to health care services.[42] These are among the historic effects of midcentury redlining practices in American cities that, in their day, were designed to codify exclusion in an integrating world.

Such practices continue to have repercussions on residential segregation and wealth accumulation, as well as on other types of disinvestment in affected communities today, such as the incidence of health care and food deserts in African American communities. A key aspect of achieving health equity through the urban built environment is identifying and dismantling structures of exclusion that shape public space.[43]

Although many policies and attitudes have shifted toward advancing diversity and inclusion, direct and implicit biases still pervade public processes of all kinds. Developing awareness and evidence of systemic barriers to inclusion is essential to evaluating whether a process can advance inclusion or health equity.

Community Participation Builds Social Capital & Better Health

When people can take part in community activities and access a wide range of community services, they tend to feel more included. "To develop and strengthen partnerships between organizations and groups, stakeholders must have the ability to come together and organize, and voice activist demands," notes the Mexico City–based pedestrian activist Jorge Cañez.[44] When people trust members of their community—even those with whom they have had little or no direct interaction—that trust contributes to collective action.[45]

Recent research has found "strong reasons to believe that high levels of inequality depress civic participation."[46] The effect of inequality on participation by people with lower incomes may stem from their having fewer resources to support their participation or from a belief that "getting involved will be fruitless because the system is stacked against them."[47] When inequality drives down civic participation, it is as a consequence of systemic structures that leave people excluded and disenfranchised and "can constitute a serious threat to health."[48]

Further evidence suggests that inequality is the strongest determinant of trust and that trust has an even greater effect on community participation than on political participation.[49]

Superkilen Park forms part of Copenhagen's Green Cycle Route. Designed by BIG Bjarke Ingels Group, the park includes features that represent public spaces in the over 60 countries that local neighbors call home. (Photo: Jennifer Gardner)

Luminothérapie, an illuminated playground in Montreal's Quartier des Spectacles, is an annual winter light installation inviting engagement, movement, and enjoyment in public space during Quebec's long winter nights. The 2017–2018 installation, *Impulse*, includes 30 interactive lighted seesaws that invite people of all ages to play. (Photo: Susan Moss for Montreal via Flickr)

Residents in extremely poor neighborhoods are less likely to report having regular sources of social support, like a marital partner or close friends.[50] This is important because high levels of community social cohesion are based on sources of social support (e.g., friendships, visiting, borrowing and exchanging favors with neighbors)—that are linked to better mental health.[51]

Lack of social connection and support can have serious consequences. A sociological study of the 1995 Chicago heat wave found that people who were more socially isolated (i.e., had little social contact or rarely left their apartments) were more likely to die during extreme conditions.[52] Indeed, a developing body of research finds that social isolation is a growing public health issue. When measured as self-reported loneliness, social isolation contributes more strongly to health than any component of a person's social network.[53]

Rapid changes in social equality, such as a widening or compression of income distribution, have significant effects on both social cohesion and health. The health effects of residential segregation (in the cases cited, the spatial concentration of people with low incomes) have been shown to impact isolation. In World War II–era Britain, reducing the income differential led to solidarity and cohesion and dramatic improvements in life expectancy. In Roseto, Pennsylvania, a post-war widening of the income gap resulted in a breakdown of community cohesion, followed by a sharp increase in coronary disease deaths.[54]

One study found that low levels of constituent trust in the Riksdag (Swedish national parliament) were significantly associated with poor self-rated health.[55] On the other hand, attendance of community members at community events in core urban areas is linked with higher levels of self-rated health.[56] The degree of civic distrust and paucity of civic life, measured by membership in associations or groups, are strongly correlated with overall mortality. Rates of public participation have been highly and significantly correlated with health-related variables like life expectancy, social protection and health

expenditures, legal abortions, infant mortality, and road accident deaths, and have shown moderately significant correlations with life satisfaction and happiness.[57]

Public Spaces and Community Assets Can Support Civic Trust

Research is beginning to show that access to high-quality public spaces can promote civic trust and participation. The Center for Active Design has demonstrated that living within a ten-minute walk of a park is positively and significantly associated with higher levels of civic trust, appreciation, and stewardship.[58] People living near a park that is both popular and used by many community members exhibit even higher levels of civic trust. Interestingly, this finding holds true regardless of whether respondents report visiting the park themselves.[59] The way people feel about their shared public space assets can indicate overall civic trust (see also Principle 3 for more on social connectivity and well-being).

Diverse and representative participation in the processes that shape public shared spaces can foster meaningful inclusion. Diversity is a key element of social and mental health; stated differently, certain health benefits may accrue when an individual engages with a more diverse group of people, which leads to higher social capital.[60]

Just how such participation is best fostered in any given place, project, or process will vary. To account for this, New York City's Department of Mental Health and Hygiene's Center for Health Equity created a multistep participatory process that helped the agency understand the local cultural identities of a place and design a responsive health intervention. That process included the following steps:

1. Residents identified priorities and needs in the areas of activity/active design, healthy eating, and chronic disease management.
2. Community-based organizations developed project proposals based on those priorities.
3. Residents voted on the projects.
4. Selected projects were implemented.
5. Residents engage directly with the results of those projects—for example, by using a new walking trail.[61]

Whether in New York City, Oklahoma City, Mexico City, or Ho Chi Minh City, setting shared goals that meet the needs and desires of residents within local community contexts can make participation in place-shaping processes meaningful and supportive of even bigger goals—like achieving community trust.

Sample Research Questions for Principle 2

- How does people's trust in civic institutions and in one another affect their level of engagement in participatory public processes?
- How can the design process be used to address historic racism and other systemic forms of exclusion?
- How can improvement to people's social interactions within public space stimulate better health?
- How are local perceptions of health considered and incorporated into health-promoting public space programs and projects?
- What is the level of community-led stewardship of public space and community assets?
- How can local social networks, including partnerships between organizations, be harnessed and strengthened as part of the planning process?

Design & program public space for health equity by improving quality, enhancing access & safety, & inviting diversity.

What does this component of the Framework do?

- Addresses the direct connections between physical space and health outcomes and establishes a subset of indicators that suggest inputs for a quality index for public spaces that promote inclusion and health.
- Demonstrates the role of spatial and programmatic design and planning in challenging health inequities, with a focus on accessibility, access, and diversity of users.
- Establishes the spatial, social, and perceptive dimensions within a space that strengthen inclusion.
- Serves as a tool for architects and urban designers as well as for researchers investigating correlations between place and health outcomes. The metrics in this principle may be applied at the site or project scale.

When it comes to promoting inclusion and health in public space, design matters. The quality, sense of safety, and accessibility of and access to a public space influence how a space is used and how people feel in that place.

Public Space Is Essential for Health & Well-Being

Design and programming of physical space can shape both physical health and mental well-being, every day. Over the past two decades, research across disciplines has brought to light the importance of creating opportunities for physical activity in the places people pass through and visit in their daily lives. Interacting with public spaces, even when we're simply using a sidewalk or crossing a street, is part of everyday life. Conscientious design considerations are essential in supporting active use and social interactions within those spaces.

Lack of physical activity leads to weight gain and obesity and is a primary cause of chronic diseases, including heart disease, cancer, and diabetes.[62] It's also enormously expensive. In 2013, physical inactivity cost the world $67.5 billion through direct health care expenditures and lost productivity.[63]

Yet, only one in five American adults (21 percent) meets the national physical activity recommendations for aerobic and muscle strengthening.[64] In addition, only about 25 percent of children and youth engage in 60 minutes of daily physical activity, as recommended.[65]

The mental health and well-being benefits of access to safe, high-quality, and green public spaces that provide opportunities for social interaction are substantial.[66] Social isolation, or lack of social connection, is devastating to a person's health, increasing mortality risk by approximately 30%.[67] Loneliness, social isolation, and living alone correspond, respectively, to an average 29%, 26%, and 32% increased likelihood of mortality.[68] Since the 1980s, the percentage of American adults who say they are lonely has doubled from 20% to 40%.[69] In short, the influence of social relationships on mortality risk is comparable with that of other well-established risk factors such as chronic diseases (see Principle 2 for more on community engagement and social isolation).[70]

Planners and policymakers don't always think about building health outcomes into their public space work, yet doing so can have many health benefits.[71] The drivers of this principle describe different but connected characteristics of space that may be observed or surveyed. These include the quality of

Creative play elements can help promote physical activity for all ages. Here, an outdoor climbing wall in Malmö, Sweden (Photo: Steven Johnson, Boundless)

public space, its accessibility and access, its use and diversity of users, and the sense of safety and security it advances.

Quality of Public Spaces Supports Inclusion & Active Use

Research shows that the physical characteristics of a space affect how frequently and how widely it is used.

For example, trees matter. In one study, the amount of time residents spent in equal-sized common spaces was strongly predicted by the presence, location, and number of trees. The more trees, the more people were observed using the space at any given time. The presence of trees consistently predicted greater use of outdoor spaces in two inner-city neighborhoods—by adults, by youth, and by mixed-age groups of youth and adults.[72] In the same vein, vegetation and vegetative cover have been correlated with increased physical activity in those spaces.[73]

Other characteristics and amenities such as site furnishings (benches, waste bins, shade, etc.) also invite a diversity of users and increase use. Sites with a mix of features invite a mix of users and uses—people from different racial and ethnic groups who want to use the space for socializing, spending time with family or friends, recreation, independent relaxation, or group activities.[74] It is important to note that inclusionary design interventions range in scale from an object such as a bench or a trashcan to projects that involve landscaping, entrance and edge design, etc. Whether large or small, they may have equal value within a space.

The physical characteristics of a place may also influence the development of neighborhood social ties and cohesion, with positive effects for community connectedness and mental well-being.[75] Quality of space imparts a unique individual experience; that is, each person will perceive and enjoy it differently. Perceptions of park quality correlate with higher levels of physical activity and lower body-mass index (BMI) scores, suggesting that park improvements can help promote better

The Cheonggyecheon River in Seoul, where the city restored this urban river landscape that replaced elevated highway infrastructure. It has been open to the public since 2005, offering access to nature and releiving urban heat island effect. (Photo: Ken Eckert)

health.[76] Measures of perceived quality among users of a public space are therefore effective predictors of community health levels around that space.

Access and Accessibility Foster Equity & Diversity

Access and accessibility are not the same. Access is the means by which a space is entered and the times it may be entered, while accessibility means those elements of design that support equal access to and use of a space for users with disabilities. Both access and accessibility are essential in ensuring that a space is used by diverse groups, supports their various needs, and is equally available to and serving all.

Proximity to public open spaces like parks, plazas, and green spaces has numerous health benefits, and people have been shown to be more likely to use public spaces for physical activity if those spaces are of high quality.[77] One study found that people living within a half-mile of a park participate in 38 percent more exercise sessions per week than people who live further away.[78]

Design with dignity. Copenhagen's sanitation department makes collecting glass bottles for refunds safer and easier by deploying trash cans with collection shelves for recyclables. (Photos: Top, Steven Johnson, Boundless; Bottom, KBHpant)

Diversity Supports Inclusion

An empty public space is a bad sign. A space performs well when people use it—especially when those people come from diverse groups and interact with each other, which promotes inclusion.[79] Numerous studies have suggested that exposure to people who are different from one's self—including differences in race, sexual preference, or religion—increases tolerance and empathy toward others.[80] Creating spaces that invite a diversity of users helps build a more inclusive and equitable community for all. When approaching a project, it is helpful to find out who is using a space, as well as when and how, to inform design strategy.

Safety and Security Are Increased Through Design Features and Presence of Users

People must feel a space is safe before they use it, yet the presence of people in a space is an important indicator of safety. For example, the presence of women, children, and elderly people in a space makes it seem safer because these groups typically are viewed as more vulnerable to crime.[81] However, people from these groups also need to feel safe to be in the space. Other elements that make a place more attractive and inclusive can also make it feel safer. For example, a study of public housing in Chicago found that the presence of physical factors including vegetation and social factors including neighborhood social ties were significantly related to residents' perceptions of safety.[82]

Certain design approaches, such as Crime Prevention Through Environmental Design (CPTED), target that sense of safety. CPTED was developed under the premise that safe space is "defensible space."[83] However, Gehl Institute has found that when spaces are designed to be defensive and uncomfortable to certain groups, they may become unwelcoming to everyone.[84] As such, removing barriers to participation in public spaces and enabling a wider range of people to enjoy the space is key to creating thriving, safer, and more equitable communities.

Demonstrated care for and maintenance of a space also influence crime rates. For example, the greening of vacant lots in Philadelphia was associated with consistent reductions in gun assaults for the whole city as well as reductions in vandalism in the area of the city where the lots were located.[85]

Amager Beach Park, in Copenhagen is an attractive recreational space that is accessible to people throughout the city. The beach opened in 1934 and added an artificial island in 2005 with a lagoon, kiosks, changing rooms, public toilets, and a paved route along the beach for walking, running, cycling, and roller-skating. It has become one of Copenhagen's most democratic and popular public spaces, enjoyed by people from all social, ethnic, and religious backgrounds. (Photos: Louise Vogel Kielgast)

Sample Research Questions for Principle 3

- How does the quality of public space relate to improved health outcomes within a community?
- How can we assess and measure which physical qualities of public spaces are most conducive for promoting physical activity?
- How are accessibility and access to a public space secured for all people—regardless of where they live, their age, and their ability?
- To what extent does a place invite a diversity of users and uses?
- How can green spaces and other open spaces become more integrated into their users' daily lives?
- What physical and social elements of a public space are most likely to positively affect people's perceptions of the local environment, including their sense of safety?

Principle 4: Sustain

Foster social resilience & capacity of local communities to engage with changes in place over time by promoting representation, agency, and stability.

What does this component of the Framework do?

- Identifies the elements that support social resilience in a place.
- Demonstrates how connections among diverse populations in a public space (using it, designing it, studying it) can foster inclusion over the long term.
- Assesses the capacity of existing community structures to be prepared for change over time.
- Offers benefits to community residents and aids the long-term work of strategic planners, policymakers, politicians, advocates, and community leaders and organizations.

This principle evaluates how inclusion and health can be maintained in a public space over time, because public spaces are dynamic. "Place—when understood as not just a material, spatial construction, but also a social construct that is a reflection of cultural, economic, and political ideologies and agendas—is not a stagnant concept with a singular identity over time."[86] Rather, place is constantly changing, and the capacity of communities and other stakeholders to adapt to and leverage change is important for sustained inclusiveness. Social resilience can be defined as the ability of a community or group of people to adapt to stresses that can come from changes around them—whether social, economic, or from the physical environment.

The level of resilience in a place is a continually changing dynamic that must be reassessed regularly.[87] Therefore, assessment of social resilience should consider factors such as the presence of ongoing participatory processes; the stability of a community or groups within a place; the effectiveness of collective actions within a community; demonstration of care put into a place; and the presence of ways to continually observe and respond to change. These are all factors that relate to adaptability, a key indicator of social resilience.

Social resilience is a characteristic of communities able to mitigate against negative outcomes that may arise from change.

Principle 4 of the Framework addresses emergent concerns from research—for example, that improvements to public space can displace existing communities and that steps must be taken to ensure that existing or marginalized communities benefit from design interventions.

Ongoing Representation Is Essential for Social Resilience

Cultivating resilience requires communities to build their capacities to continuously learn, respond, and adapt to changes. Social learning, participatory decision-making, and collective transformation are central aspects of social resilience.[88] Such processes, when activated inclusively within a neighborhood, produce broader representation in local governance and build capacity to inform the institutions and spaces that serve local groups. Representation in the practices that shape and maintain spaces over time, particularly those that leverage existing or new collaborations among local groups and institutions, can be most successful. Holding government agencies and organizations accountable for public places promotes ongoing community development, which is crucial to cultivating local capacity for ongoing representation in a place.[89]

University students in Ciudad Juárez survey the site of a public plaza that hadn't performed well after its construction. Gran Plaza Juan Gabriel was created during an urban renewal project. Working with the city government through the 100 Resilient Cities office in Juárez, the students gathered data about public life activity around the plaza to support a national competition to redesign the space. (Photo: Jennifer Gardner)

Community Stability Is Key to Adaptability

Even when place amenities are improved and a community benefits, the cumulative effects of change may lead to the exclusion of that very community. For example, a park once primarily visited by drug users and considered unsafe by parents in a community is renovated and policies are put in place with children in mind, and the park becomes a community asset. This seems like a positive outcome, but it can set other actions in motion. First is the immediate displacement of those park users perceived as dangerous by the actors remaking the site. This displacement may cause those previous users, and their perceived antisocial behavior, to locate to another space.

Another, longer-term kind of displacement may be linked to neighborhood affordability. If property values go up and new development takes place, some residents may be priced out of the very place that was redeveloped, at least in theory, for them.[90] The availability of affordable and accessible housing affects the resilience of vulnerable individuals and households.[91] This guiding principle takes both types of displacement activity into consideration, even when housing is not a specific project or policy target.

Collective Efficacy Drives Continued Engagement

Collective efficacy includes both social control and social cohesion.[92] These indicators support the continued engagement of community members in their space and community.

Social control is evaluated by assessing stakeholder input in a decision-making process and identifying the visible results of that input in space. Cultural representation and diversity in neighborhoods are determinants of community resilience. Preservation of cultural diversity helps social systems better adapt to and cope with change."[93] Consequently, integrating local input into decision making is essential to preserving cultural assets.

Social cohesion is an important determinant of population health and well-being.[94] Measures of social cohesion reflect the degree to which society and individuals are bound together by shared values of health, common attitudes and beliefs, and

Following the 2016 presidential election, New Yorkers found a spontaneous way to express their opinions and feelings on the walls of the city's Union Square subway station. Seeing the importance of the community gathering around the messages, the Metropolitan Transportation Authority allowed the station walls to act as a public message board. (Photo: Julia Day)

shared allegiance to local social norms, rules, and institutions. Scholars have suggested that a community's social cohesion may influence people's associations between potentially adverse factors such as poverty and individual mental health.[95] In this way, social cohesion plays a key role in building and maintaining social resilience. Socially isolated individuals are less resilient than socially connected individuals because they have less access to shared resources. At the community level, concentrated levels of isolation are a major driver of vulnerability.[96] Proximal solidarity—being concerned with and feeling connected to other people in your neighborhood—fosters formation or concentration of social and political power locally.[97] (See Principle 2 for a discussion of how civic trust, civic and community participation, and social capital can contribute to increased, or decreased, local power.)

Research shows that our common spaces can strengthen community bonds and expose people to difference, and that even indirect, passive social interactions can foster a sense of belonging.[98] Financial impacts may also be felt. "Facilitating social connections, and harnessing capital that arises from them, can create resilience at the community-level that is comparable to, or exceeds, fiscal investment in physical infrastructure."[99] Further, the development of partnerships between organizations or groups of people who might otherwise have little or no working relationship can advance local capacity.[100] Organizations that engage in cross-sector partnerships can develop proposals and structures that reduce negative outcomes from change and address systemic conditions.

Investment at All Scales Demonstrates Care

Continued investment in public space—from policies that support equitable distribution of assets, to funding for local investments, to maintenance and local stewardship—demonstrate care for a place by governing structures and local populations. Historically, disinvestment in place has been a leading cause of blight, abandonment, poverty, poor health, and neighborhood segregation and is still a leading cause of many inequities that plague our urban environments.

Representation in the design field itself is essential to inclusionary public space outcomes in communities. Students at Harvard's Graduate School of Design have organized *Black in Design* for two consecutive years, to explore design as resistance, and show how designers can be advocates. (Photo: Harvard Graduate School of Design)

Research has demonstrated that when community members are involved, from the earliest stages, in a process that will change their environment, long-term resilience is greatly enhanced. However, if community members are excluded from that process, uncertainty about change can create conflict among groups within the community.[101] Therefore, allocating funding and time for this type of engagement in the decision-making process is valuable to assure all of the people in the community that they will benefit from the change.

Versatility & Continued Evaluation Support Positive Change

This driver focuses on space versatility to support changing needs and on ongoing evaluation to assess those changing needs. Project evaluations are not typically part of design and planning practice. We suggest that evaluation is essential to the public space intervention processes and should be integrated

Sample Research Questions for Principle 4

- How can inclusion and health be maintained in a place over time?
- How do the governance structures of a place support the continued representation of stakeholders?
- To what extent is the local community represented in decision-making processes in the built environment and within the public spaces themselves?
- What mechanisms protect vulnerable populations from potential negative outcomes of change?
- Are there social and fiscal capital resources among stakeholders to leverage public space into long-term benefits of inclusion and health at a community scale?
- Where do the long-term benefits and positive impacts of public space improvements on health or inclusion accrue?
- What evidence is there of local capacity for managing change in place over time?

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The Inclusive Healthy Places Framework

The Inclusive Healthy Places Framework

Understanding how the public places we share influence our health and lived experience is key to addressing health equity. Inclusion and health equity go hand in hand in the public realm.

In the Framework, we show how design and programming strategies for shaping public space and influencing health can help rebalance advantage to benefit those who have been excluded, both intentionally and unintentionally.

To promote inclusion in public spaces, we must design, program, maintain, and evaluate them with the knowledge that our differences affect our experiences, perceptions, and needs. Following is a brief guide to the Framework content.

How to Read the Framework Matrix

The Framework's structure and content reflect its complexity. Research on health, inclusion, and public space does not indicate many clear causal relationships. It does, however, suggest correlations among key elements of inclusive healthy places and identifies areas for testing and future study—which we capture as the guiding principles addressed in Part 1.

To improve understanding of these dynamic relationships, the Framework groups drivers, indicators, and metrics together under each guiding principle to outline potential connections for purpose of analysis (see definitions of these terms below).

What Are Drivers?

For the purposes of this framework, we define *drivers* as the conditions, activities, and/or interventions that create pathways for achieving health equity in the context of public space. The Framework does not suggest, at this stage, causal relationships, but aims to identify impacts, correlations, and associations among indicators, which are grouped thematically under each driver. For our purposes here, drivers are a mix of political, economic, or social structures and institutions, as well as physical features and conditions, that are rooted in and reflective of social preconditions, norms, and values and determine the directions and processes of change.

What Are Indicators?

An *indicator* is a quantitative or qualitative measure derived from observed facts that simplifies and communicates the reality of a complex situation. Indicators reveal the relative position of the phenomenon being measured and, when evaluated over time, can illustrate the magnitude and direction of change (up or down; increasing or decreasing).

In this way, indicators are variables, meaning that the outcome of the measure may change over time or across scales. Indicators may be applied at a single point (e.g., to establish a baseline measure) or repeatedly (to demonstrate change or variation over time or across places). Indicators may be quantitative (e.g., rates of change over time, counts of people representative of a group). Qualitative indicators may include self-reported health status, survey data, or conditions. Indicators may also measure the presence or existence of a feature or characteristic (a yes/no variable). Generally, in order to be meaningful for an evaluation, indicators must be highly specific, observable, reliable, valid, and measurable. Strong indicators are often simple and lend themselves well to observation and analysis.

The Framework presents a range of indicators developed through this study's multi-method research process. The indicators are linked to, and therefore give shape to, the drivers supporting each guiding principle in the Framework.

When using the Framework, it is important to remember that not all the indicators need to be measured, present, or demonstrated in every context, place, or project. Instead, evaluators may select a suite of indicators to best capture the desired baseline data set, based on the intended impact and outcomes for a particular public space intervention. There is no set prescription for an inclusive healthy place; the indicators are intended to give practitioners and evaluators a sense of the key aspects that help monitor changes over time and determine whether a space or intervention supports health, equity, and inclusion as intended. We hope that ongoing testing of the Framework will lead to more best practices, including for measurement.

What Are Metrics?

Simply put, metrics are units or standards of measurement. Metrics represent a single, specific data point (e.g., the number of people who attended a public meeting or the percentage of homeowners within a study area).

Different metrics serve different purposes. Each indicator in the Framework may be supported by several metrics. Although each metric supports the same indicator, they may have different data sources, may measure at different scales, or may be based on different research findings. It is important to take the time to decide which are the right metrics for a given project—and to revisit that decision over time as conditions change. Such is the dynamic nature of place-based work.

It is important to note that the list of metrics proposed here is not exhaustive but illustrative. In testing and applying the Framework, we anticipate that practitioners will identify alternatives and improvements to the metrics.

Data Types for the Indicators

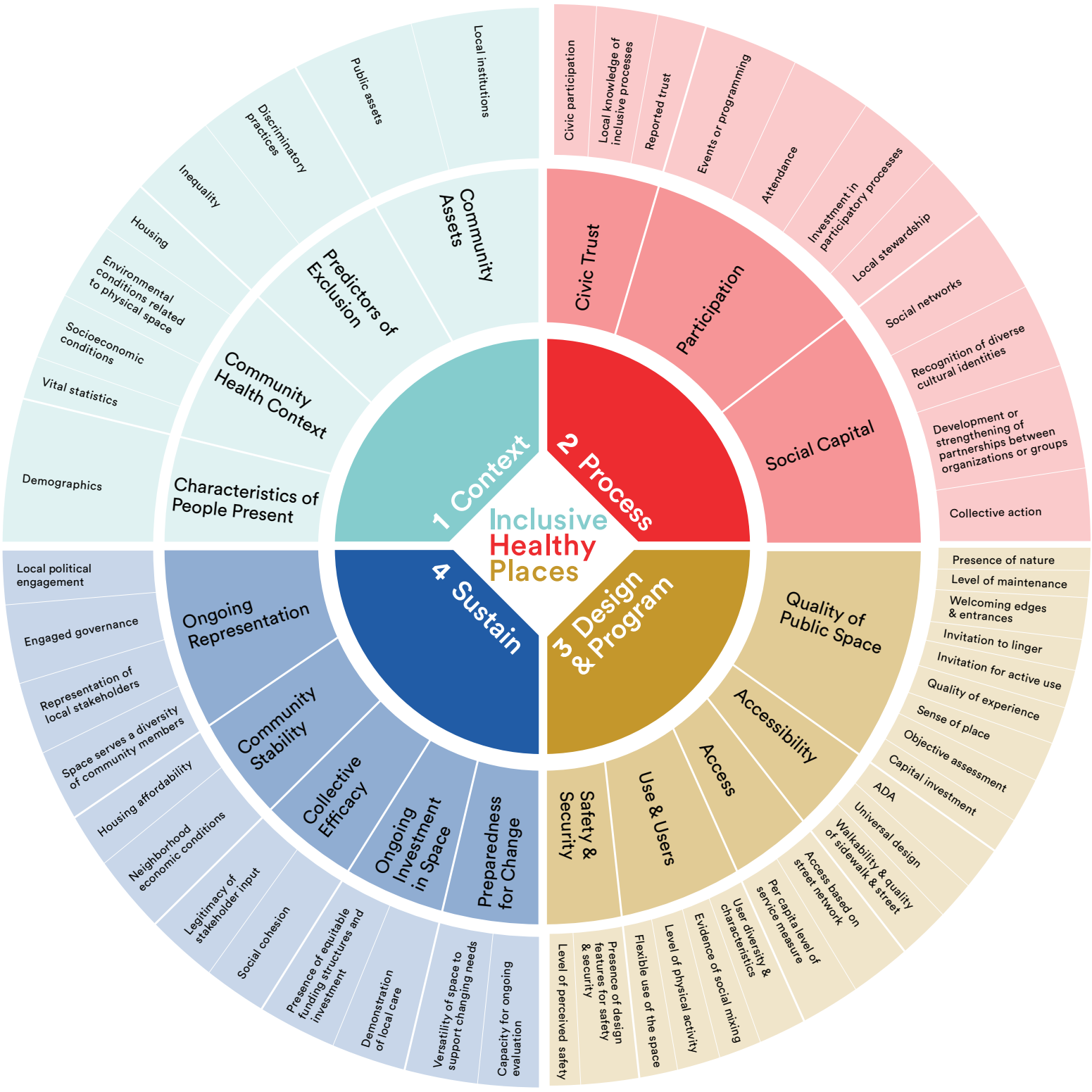
The Framework includes a set of icons describing the type of data to be collected for measuring a particular indicator with a given metric. This is to help users prioritize metrics based on their level of ambition and the amount of time they have. For example, does the project timeline allow for collection of detailed pre/post-evaluation measures that include on-site observational methods? Or will a study of the social networks supporting a public space intervention require time to conduct resident surveys?

Some data sets are readily available, such as administrative data collected by public agencies and shared through open data portals. Some data sets may require special requests for access, or they may even need to be created by the evaluator or practitioner. In all cases, geography is an essential consideration, as are the inherently political implications of collecting and using data about people within defined geographic boundaries like ZIP codes or political districts. This is a general note that carries perhaps even greater weight in the evaluation of inclusion and health in place-based work.

We do not offer specific recommendations regarding data-collection methods, although we broadly recommend using relevant best practices for data collection associated with each type of metric to produce valid and reliable data.

Data Typology	Description
Desktop	
Administrative Data	Data collected by public agencies, hospitals, or other organizations required to report on outcomes at boundaries dictated by administrative or political districts; these data are not collected for research purposes
Economic Data	Data about public investment, business, finance, money, and markets (e.g., consumer markets, real estate values, housing market trends)
Population Data	Sociodemographic data
Publicly Available Data	Data collected by public agencies, governments, or private entities and made available for public use
Vital Statistics	Data collected for the registration of vital events, specifically for this work, births and causes of death
Policy Data	Information about public policies, including legislation, regulations, benchmarks or targets as well as policies of relevant institutions or organizations
Observational	
Built Environment Data	Quantitative or qualitative data about the features and characteristics of physical space (e.g., park amenities, streetscape elements, accessibility)
Spatial Observation Data	Primary data collected by researchers through use of observational methods in space. This may include systematic or non-systematic observational methods
Survey	
Survey Data	Data collected by researchers from a population of interest using standardized questions via various modes, including in-person, telephone, web-based, or paper questionnaires
Interview	Primary data collected by researchers through conversations, structured or unstructured, including interviews, focus groups (group interviews), and other discursive methods

The Inclusive Healthy Places Framework



Indicator	Data	Metric
Characteristics of People Present[1]		
Demographics	🖥	Population by age, sex, gender or gender identity, race and ethnicity, individual income, education, nativity status
Community Health Context[2]		
Vital statistics	🖥	Life expectancy by sex, race and ethnicity, neighborhood income
	🖥	All-cause mortality rate by sex, race and ethnicity, neighborhood income
	🖥	Leading causes of mortality rate by sex, race and ethnicity, neighborhood income
	🖥	Birth rates by race and ethnicity, neighborhood income
	🖥	Leading causes of morbidity by sex, race and ethnicity (diabetes, obesity, hypertension, asthma)
	🖥	Leading causes of hospitalizations, emergency department visits (diabetes, asthma, mental illness)
	✎	Self-reported state of health and rate of physical activity
Socioeconomic conditions	🖥	Percentage of population living below federal poverty line
	🖥	Percentage of population employed by age, sex, race and ethnicity, etc.
Environmental conditions related to physical space[i]	🖥	Air pollution rates
	🖥	Number of residents within max. 10-minute walk from the public space (level of service measure)[3]
	🖥	Supermarket square footage per neighborhood area[4]
	🖥	Proportion of large park space (6+ contiguous acres) to neighborhood land area[5]
	🖥	Percentage of children living within 1 mile of a safe and well maintained playground[6]
	🖥	Proportional area of urban tree canopy to land area[7]
	🖥	Proportion of low-income residents with access to green space
Housing[ii]	🖥	Proportion of secure affordable options (rent control, public housing, affordable housing, etc.)
	🖥 ✎	Reported level or incidences of housing quality issues[8]
	🖥	Housing tenure
	✎	Duration of residence in neighborhood
Predictors of Exclusion		
Inequality[iii]	🖥	Median household income by race and ethnicity[9]
	🖥	Rates of incarceration by race and ethnicity, sex, age and income[9]

I. It has become evident that environments affect the eating and exercise habits of residents. Scientists and medical professionals agree that lack of access to healthy food options and safe outdoor spaces is a central contributor to obesity (Policy Link, *Equitable Development Toolkit*).

II. Although this framework focusses on public spaces, it is important to note the relationship between housing and health to develop a thorough understanding of the health context of a place. Unaffordable housing and poor housing conditions are closely associated with poverty and poor health (*NYC Community Health Profiles*, 2015).

III. There is growing evidence opportunity is a leading determinant of health and longevity. "Disadvantage drives health disparities—People at society's lowest rungs are more likely to become sick, more likely to get diagnosed and treated later (if at all), and more likely to die sooner than people higher up the ladder" (Policy Link, *Why Place and Race Matter*).

Indicator	Data	Metric
Predictors of Exclusion		
Inequality		Concentration of residential poverty based on income on a citywide or district scale (measured as a percentage)[11]
Discriminatory practices		Presence of historical and current discriminatory practices (e.g., redlining, predatory lending)
		Self-reported rates of unfair treatment or experiences of discrimination by race and ethnicity and other relevant demographics
Community Assets[12]		
Public assets		Proportion of open spaces to land area (by active and passive recreation)[13]
		Mobility analysis:[14] – Percentage of transportation mode split to work (car, public transport, bike, walking) – Average transit commute time – Cost of transportation as a percentage of median income
		Quality of sample public spaces compared with a larger boundary of analysis (surrounding neighborhoods, district, county, borough, etc.)[iv]
		Access to free public facilities (school, library, recreation, etc.)
		Presence of community services (e.g., early childhood education centers, community recycling facilities, cultural organizations, Meals on Wheels, etc.)
Local institutions		Number of diverse local Institutions, both public and private (e.g., schools, libraries, hospitals, police, service agencies, other nonprofits, major businesses)[15]
		Number of community-relevant local health and social services provided (measured either as a total number or as a percentage of total services provided)[16]
		Presence of local landmarks, symbols, and local art
		Presence of cultural organizations and institutions
		Presence of religious organizations and institutions

IV. Refer to Principle 3 indicator *Quality of public space* for metrics related to quality of physical features

Indicator	Data	Metric
Civic Trust[v] [17]		
Civic participation		Voter turnout by relevant demographics[18]
		Self-reported rate of civic participation (e.g., participation at political meetings, membership in political clubs, advocacy and organizing groups, participatory budgeting)[19]
Local knowledge of inclusive processes		Self-reported level of local awareness of public process and various levers of power within government
		Level of local awareness of funding structures that can support community- oriented development
Reported trust[20]		Self-reported trust in government and civic associations[21]
		Self-reported trust in fellow community members (on a scale created/determined by the evaluator)[22]
		Self-reported rate (e.g., daily, weekly, etc.) of informal socializing[23]
		Self-reported frequency (e.g., daily, weekly, etc.) of unplanned contact[24]
Participation		
Events or programming[vi] [25]		Number of community programs that are relevant to the community/represent diverse cultural identities.[26]
		Number of community events (e.g., festivals, street fairs, sporting tournaments, etc.)[27]
		Percentage of community-led public events and programs
		Number of volunteer efforts (e.g., park cleanup, corporate-sponsored efforts, etc.)
Attendance[vii]		Presence of community members at city-level celebrations or other organized events[28]
		Percentage of total population that is actively participating in local programs or activities (membership heterogeneity)[29]
		Reported rate of attendance
Investment in participatory processes		Allocation of funding available for public engagement per capita
		Allocation of funding available for community-generated projects per capita
		Presence of technical assistance for community-generated projects
		Presence of participatory budgeting
		Presence of public process that accommodates, supports, or requires multiparty partnerships: multiagency, private-public, private-private
Local stewardship[30]		Presence of community-led volunteer projects or programs
		Presence of grassroots organizing groups or efforts

V. Finding from research interviews and site visit in Malmö and Copenhagen: Interviewees (Dearborn, Hand, Lopez, Odbert C, Towe V, Wilkerson) emphasized the value of trust in and positive interaction with government and local community organizations for building broad community trust and cohesion and how trust in others affects community collaboration and participation in placemaking processes and their outputs (such as in Superkilen and Folkets Park, Copenhagen).

VI. As described by the Design Trust for Public Space to NYC Mayor Bill de Blasio, cooperative planning to organize and publicize civic events has the added value of fostering new relationships and resilience across neighborhoods.

VII. The presence of community members at community events in core urban areas has led to higher levels of self-rated health as outlined by Daniel Kim and Ichiro Kawachi.

Indicator	Data	Metric
Civic Trust		
Local stewardship		Rate of volunteerism in public space
		Rate of volunteerism in the community
		Self-reported level of volunteerism
Social Capital		
Social networks		Representation within local leadership (religious, civic, etc.)[31]
		Self-reported willingness to cooperate, help, and exchange favors[32]
		Self-reported strength of ties (strong or weak) within a relevant network
		Self-reported frequency of experience interacting with people of diverse backgrounds[33]
		Presence of place-based conditions that inhibit the formation of neighborhood social ties (e.g., crowding and high-density living; dangerous or noisy settings; presence of high crime or high fear of crime)[34]
		Self-reported frequency of contact with social network within a specific amount of time (e.g., week, month)[35]
Recognition of diverse cultural identities[viii] [36]		Representation of different cultures via public art, monuments, signage and other physical symbols in public spaces[37]
		Frequency of opportunities for cross-cultural social interaction
Development or strengthening of partnerships between organizations or groups[38]		Self-reported presence of collaborations and information sharing between organizations[39]
		Presence of cross-sectoral partnerships
		Evidence of successful outcomes from partnerships
Collective action[ix] [40]		Participation in collective action (e.g., protests, public gatherings, voter registration drives, presence of active political membership groups, etc.)

VIII. The failure to recognize that members of minority groups have a cultural identity of their own with distinctive traditions of importance and value negatively impacts the capacity to build strong social cohesion, as argued by Thomas Maloutas and Maro Malouta.
IX. Taking part in collective action is only beneficial for health if others in your neighborhood are doing the same. There is some evidence that empowerment might be important for health at the individual level, as noted by Daniel Holman and Alan Walker.

Indicator	Data	Metric
Quality of Public Space		
Presence of nature		Percentage of the space with vegetative cover[41]
		Number, size, and location of trees within a public space[42]
Level of maintenance		Presence of features and amenities that demonstrate maintenance: – lack of presence of graffiti[43] – lack of presence of litter[44] – presence of staff – presence of volunteer stewards – quality of overall condition of repair of space and features[45]
Presence of welcoming edges and entrances		Quality assessment of entrances, access routes and crossing intersections[46]
		Number of entrances per linear foot of a public space's boundary; number of points of access[47]
Presence of site furnishings and materials that invite people to linger		Presence of basic public space features and amenities that encourage lingering and physical activity, including: – children's playground and/or features for play – seating, formal or informal – picnic tables – shade or sheltering structures – barbecues – gardens or planted areas[48] – evidence of programming (see event and programming indicator in P2) – concessions, kiosks, or other commercial activity serving the space – public access toilets – use of noise-reduction strategies in the space – use of natural materials in the space – water features
Presence of amenities and site furnishings that invite people to actively use the space		Presence of features and amenities that enhance diversity of public space experience, including: – presence of features or facilities that promote physical activity[49] – walking paths – bike paths – shade along walking paths or seating areas – signs that dogs are allowed[50]
Quality of experience		Self-reported degree of satisfaction with quality of the public space
		Degree of disparity in self-reported perceived quality of a public space among different groups[51]
		Distribution of space to people's demonstrated or desired patterns of use (e.g., percentage of area dedicated to pedestrians based on volume of pedestrians)[52]
		Self-reported level of positive sensory experience, sense of high aesthetic quality in the space[53]
Sense of place		Self-reported perceived value of public spaces
Objective quality assessment		Positive rating of features (e.g., advocacy report cards, agency asset assessment, structural reports, etc.)
Capital investment		History of capital investment in a space or within a study area[54]

Indicator	Data	Metric
Accessibility		
ADA	👁	Presence of ADA-required features in project area and surrounding space[55]
	👁	Level of quality and maintenance of pavements and surfaces[56]
Universal design elements	👁	Principle 1: Equitable Use Principle 2: Flexibility in Use Principle 3: Simple and Intuitive Use Principle 4: Perceptible Information Principle 5: Tolerance for Error Principle 6: Low Physical Effort Principle 7: Size and Space for Approach and Use[57]
Walkability and quality of the sidewalk and street experience	👁	Absence of obstructions along pathways and access points[58]
	👁	Pedestrian crossings at street level[59]
	👁 ✎	Safe and attractive routes to/from residential homes to public space/local park
	👁	Pedestrian count[60]
Access		
Access based on street network[x] [61]	🖥	Street network distance to the nearest (same type of) public space from a study participant's home address[xi]
	🖥	Total number of (same type of) public spaces within 1 mile of a study participant's home
Per capita level of service measure[xii]	🖥	Number of residents within max. 10-minute walk from the public space
	🖥	Total area of (same type of) public space within a 1-mile street network
	🖥	Total area of (same type of) public space by population
	🖥 ✎	Total number of hours of access to space, in specified unit of time (e.g., daily, weekly, etc.)
Use & Users		
User diversity and characteristics	👁	Number of users (e.g., measured in a snapshot, over time, by zone)[62]
	👁	Number of users performing an activity (e.g., cycling, walking, sitting, etc.)[63]
	👁 ✎	Number or percentage of users characterized by a specific attribute (e.g., users participating in groups, eating food, using electronics, walking dogs, etc.)[64]
	👁	User volume throughout the day, week, year
	✎	Self-reported individual frequency of use
Evidence of social mixing	👁	Presence of physical design features or site elements that promote diverse types of use[65]
	👁	Presence of racial and/or ethnic, age and gender diversity[66]
	✎	Presence of socioeconomically diverse user groups within the same public space[67]

X. Metrics taken from the Public Space Access Index, which can be used in its entirety.

XI. Each of these metrics can be further understood by doing counts by demographic group.

XII. A ten-minute walk corresponds to an approximate 1/2-mile walk radius, measured on the street network, and is a common level of service measure for urban parks departments in the United States. NYC Parks uses a combination of 5- and 10-minute walk analyses on the street grid to determine access to small and large parks, respectively.

Indicator	Data	Metric
Use & Users		
Level of physical activity		Self-reported time spent outside per day/week
		Self-reported level of physical exercise
		Self-reported type of physical activity
Flexible use of the space		Presence of a diversity of user groups over time
		Ratio of allocated space for flexible programming
		Number of diverse groups hosting programs or events in the space over a defined period of time
Safety & Security		
Presence of features intended to improve levels of safety and security		Presence of CPTED strategies[xii] [68]
		Presence of sufficient lighting for the space
		Presence of visible care and investment in the space (e.g., gardening, murals)[69]
Level of perceived safety		Percentage of women and percentage of children using the public space[xiii] [70]
		Presence of active streets surrounding the space (proportion of activated commercial areas adjacent to the space, day/night; proportion of blind street fronts adjacent to the space)[71]
		Incidence or rate of injury, crime, or violence documented within the space or surrounding area
		Reported safety rating of features in parks and public spaces used for play[72]

XII. Refer to Gehl Institute's framework, *CPTED: A Public Life Approach*: "CPTED was developed under the premise that safe space is "defensible space." Gehl Institute believes that, ironically, when spaces are designed to be defensive and uncomfortable to certain groups, they can become unwelcoming to everyone (*A Mayor's Guide to Public Life*). "Removing barriers to participation in public spaces and enabling a wider range of people to enjoy the space is key to creating thriving, safer, and more just cities" (*CPTED, A Public Life Approach*).

XIII. Numerous studies agree that fear of crime is usually higher in women, elderly people and the youngest. Therefore the presence of such demographics in space would suggest that the perceived risk is lower (Daniel Carro, Sergi Valera, and Tomeu Vidal, "Perceived Insecurity in the Public Space").

Indicator	Data	Metric
Ongoing Representation[77]		
Local political engagement[75]		Rate of voter participation in both local and national elections comparative to citywide rates by relevant demographics
Engaged governance[76]		Percentage of population participating in public processes (e.g., organizing networks, planning for service delivery, public sustainability efforts)[77]
		Number of engagements or points of access for community participation (e.g.,promotion of meetings, online communications, personal invitation, flyering, etc.)[78]
		Number of diverse stakeholder groups engaged[79]
Representation of local stakeholders		Diversity of stakeholders participating in decisions shaping their local environment proportional to study area demographics (e.g., community boards, public process, community organizing and advocacy)[80]
		Consistency of level of participation in public meetings or programs (e.g., count of meeting attendees, proportional rate of program participation, etc.)
		Level of leadership and engagement of local nongovernmental organizations
Space serves a diversity of community members		Proportional representation of people using the space in relation to overall neighborhood demographics (e.g., if neighborhood is 30% Hispanic/Latino, are 3/10 of users Hispanic/Latino?)
		Number of programs and activities in public space catering to diverse neighborhood demographic[81]
		Level of diverse participation in programs or activities[82]
		Number of community-organized activities[83]
Community Stability[xiv 84]		
Housing affordability		Housing cost (rental and property value) in relation to city/county median including change over time
		Amount of secured affordable tenure options (e.g., rent control, public housing, affordable housing, etc.)[85]
Neighborhood economic conditions		Median area household income in relation to city/county median by relevant demographics[86]
		Percentage of population employed
		Number of diverse retailers (e.g., large chain stores, mom-and-pop shops, pharmacies, health food stores)[87]
Collective Efficacy		
Legitimacy of stakeholder input		Level of impact of stakeholder involvement on local decisionmaking[88]
		Presence of local culture in design elements[89]
		Proportion of decisions made with stakeholder input[90]
		Self-reported levels of perception of ownership over a space[91]
		Presence of effective mechanisms for cross-sector collaborations[92]

XIV. Community stability is included here as this is a critical element in building long-term resilience, and can be considered a long-term impact or outcome associated with the recommended socioeconomic and demographic baseline conditions or context indicators (Principle 1).

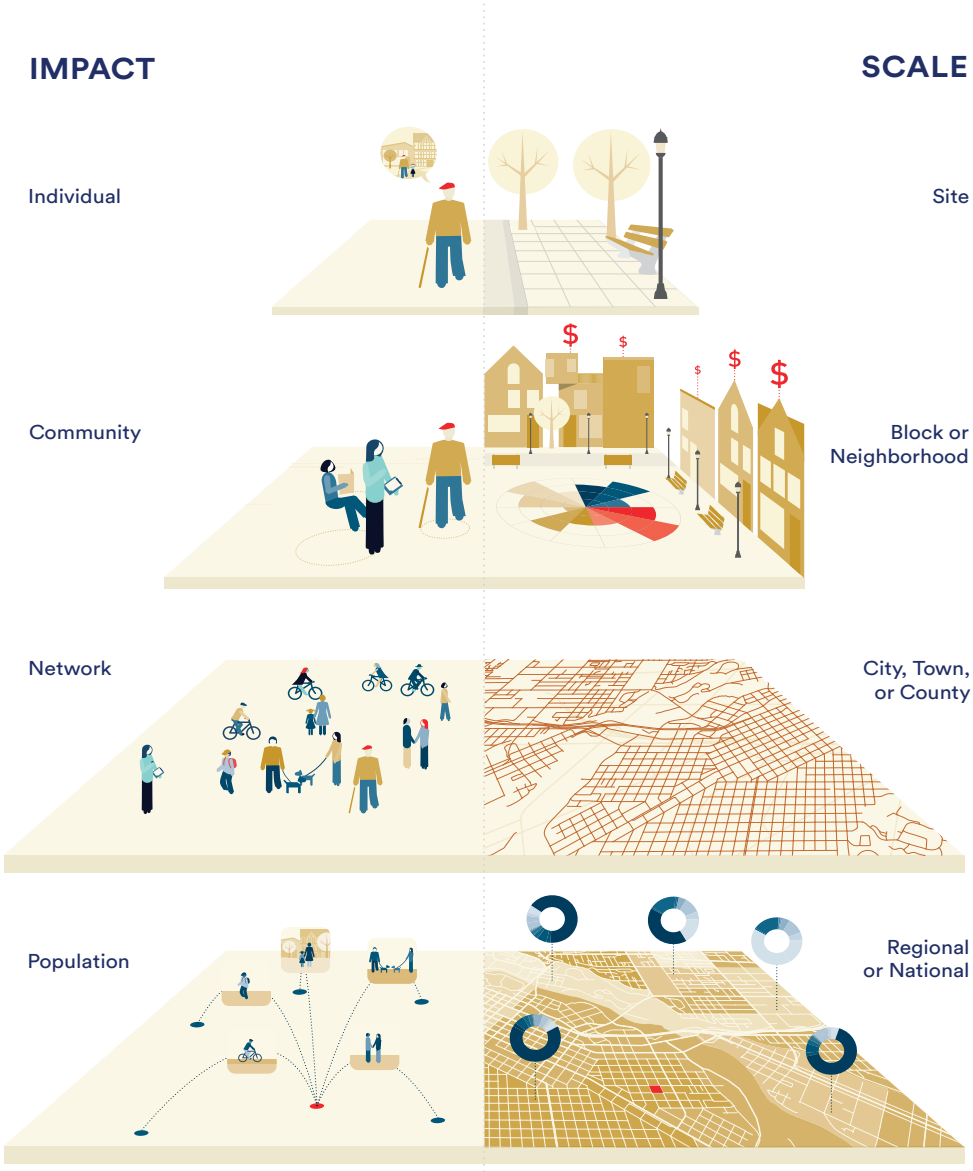
Indicator	Data	Metric
Collective Efficacy		
Social cohesion[93]		Self-reported strength of personal local networks
		Self-reported sustained feelings of trust towards other people, in or beyond public space[94]
		Self-reported ongoing levels of recognition among neighbors[95]
		Sustained rate of passive contact and spontaneous interaction[96]
Ongoing Investment in Space		
Presence of equitable funding structures and investment		Presence of funding structures that support equitable distribution of public assets
		Public/private project budgets and timelines accommodate quality stakeholder engagement
		Allocation of funding available for public engagement per capita
		Presence of policies enabling locally supported investment
		Allocation of funding available for community-generated projects per capita
Demonstration of local care		Presence of ongoing maintenance of the space
		Number of local stewards of the space
Preparedness for Change		
Versatility of space to support changing needs		Housing cost (rental and property value) in relation to city/county median, including change over time
		Percentage of space that is not allocated to a specific fixed use
Capacity for ongoing evaluation		Presence of a process for evaluating the space over time (e.g., use, benefits, safety)
		Presence of the capacity to evaluate the space over time
		Existence of mechanisms for evaluation to translate to future change

Applying the Framework Across Scales & Project Phases

It can be challenging to envision how a research-based framework can be applied to the planning, evaluation, and adaptation of real-life projects.

In an effort to make the ideas more tangible, the following table depicts a very small set of hypothetical public space interventions at different scales, from the block level to the citywide application of a national policy. Each column represents a simplified project stage at which the Inclusive Healthy Places Framework indicators could be applied. In each example, we share sample indicators, in many cases made specific to the project or intervention (with the relevant guiding principles in parentheses). The indicators shown here are not intended to be exhaustive of what could be measured or observed for each type of project. They are just a jumping-off point for considering your own "way into" the Framework as a tool.

The framework is flexible and may be layered into other data collection surrounding the planning, design, implementation, and evaluation stages of a project or program. Not every intervention will have the explicit goals or available resources to address many of the Framework's indicators within each project phase. We hope that the Framework will be tested and applied to a wide variety of public space projects so that the drivers of inclusion and health equity are more and more well understood in practice.



Example	**Baseline** (Existing Conditions)	**Inputs** (Ingredients)	**Outputs** (Products)	**Outcomes** (Results Against Goals)	**Impacts** (Long-Term Results or Change)
When will I measure?	*Before an intervention*	*During an intervention*	*During and immediately after an intervention*	*After completing an intervention*	*Long after completing an intervention*
Community co-creation and installation of new street furniture	Perceptions of the quality of the street and neighborhood physical environment (P3)	Financial resouces available to build the furniture (P1, P2)	Participation in designing or building the furniture (P2)	Reduced vandalism of street furniture on the street and neighborhood (P3)	Increased number of integrated play elements in streets of the neighborhood or city (P3)
Scale: Concrete design element at the block level	Time spent by children playing outdoors in the neighborhood (P3)	Knowledge of design types and process for installation (P2)	Transfer of knowledge (P4)	Knowledge used by community members in other projects (P4)	Local design process becomes codified in a city program (P4)
	Level of community participation in public programs (P2)	Participation in public design meetings for the new furniture (P2)	New social interactions in the process of building the furniture (P2)	New social interactions while using the furniture on the street (P3)	Nonprofit in the community receives grant to adopt the block to maintain street furniture (P4)
	Age breakdown among community members (P1)	Range of ages of participants in public design meetings (P2)	Perceptions of the quality of the design of the furniture (P3)	Increased level of time spent by children outdoors (P3)	
	Presence of policies that discourage use of neighborhood streets as gathering places (P2)			Awareness of the impacts of anti-loitering laws (P2)	
Renovation and new design program for a public park	Level of physical activity within the community (P1)	Levels of awareness and attendance at public engagement meetings (P2)	Increase in overall usership of the park (P3)	Reported levels of physical activity among park users increase (P3)	Improved overall perception of public investment within the neighborhood (P4)
Scale: Site-specific public space	Presence of local sports leagues using the park (P1)	Incidences of collective action opposing or supporting plans (P2)	Diversity among age, gender, ability, and self-reported race or ethnicity increases (P1, P3)	New stewardship program is formed with maintenance resources (P4)	Improved trust in the public design process (P2)
	Percentage of older adults or individuals with mobility impairment (P1)	Redesign adds universal design elements to increase accessibility (P3)	More adults are observed using the walking trails than before (P3)	Level of satisfaction with the quality of the park increases (P3)	Participants in stewardship program report higher level of trust in their neighbors (P2)
	Level of local stewardship before the project (P2)	New walking trails with lighting are created in the park (P3)	A friends-of-the-park group is formed to address the public process (P4)		Improved level of physical activity over a multiyear period (P3)
Comprehensive green infrastructure plan	Percentage of green space (P1)	Increase in investment in rain gardens and gray infrastructure to support the program (P1, P2)	Presence of restored natural environment (P3)	Reduction of flooding within city's lower-income neighborhoods (P1)	Reduction of asthma rates in areas benefitting from street tree program (P1)
Scale: Citywide	Level of access to green space by residents by income level (P1)	Number of new street trees planted (P3)	Perception of how "green" impacted blocks are (P3)	Reported improved sense of place connected to presence of nature (P3)	Number of volunteers citywide and in particular neighborhoods tending to rain gardens (P4)
	Presence of environmental hazards, e.g., flooding and low air and water quality (P1)	Increased ratio of permeable surfaces (P3)	Requests from community groups and members to have access to the education program (P2)		Appearance of additional amenities clustered around green infrastructure sites, e.g., bikeshare docks (P3)
	Reported level of sense of place in impacted communities (P3)	Number of new rain gardens relative to prior level of access to green space (P1, P3)	Improved street and sidewalk quality following construction (P3)		National government funding awarded to city to support maintenance of green infrastructure sites (P4)
	Presence of existing environmental justice advocacy (P4)	Educational program for residents on city water infrastructure and rain garden upkeep (P4)	Improved street and sidewalk quality following construction (P3)		Improved water quality (P1)
		Installation of new benches adjacent to rain gardens (P3)			
		Number of residents attending public information sessions during design (P2)			

Example	Baseline (Existing Conditions)	Inputs (Ingredients)	Outputs (Products)	Outcomes (Results Against Goals)	Impacts (Long-Term Results or Change)
When will I measure?	*Before an intervention*	*During an intervention*	*During and immediately after an intervention*	*After completing an intervention*	*Long after completing an intervention*
City seeks to meet national goal of a 10-minute walk to a park for all residents	Percentage of residents of a city within a 10-minute walk to a park (P1, P3)	Stakeholder feedback proposes measure be adjusted to include walk to a park's entrance (P2, P3)	Number of additional acres of open space acquired or created (P1)	Percent improvement over prior walk-to-a-park measure (P1, P3)	Nearly all residents have walkable access to open space (P1, P3)
Scale: National, Policy	Percentage and spatial concentration of residents of a city living in poverty (P1)	Local NGOs advocate for the city's policy to address lack of access to parks in areas with less park investment over time (P1, P2)	Number of new parks or plazas created or planned in high-need areas, defined by historic lack of access to open space (P2)	Level of reported trust in city government (P2)	Development of alternative strategies to create public access to existing private open spaces created to close remaining gaps (P3, P4)
	Walkability rating for a city by neighborhood (P3)	Available budget for land acquisition and streetscape improvements (P1, P4)	Presence of a new public-private partnership for monitoring the implementation process (P4)	Increased awareness reported among residents of the process to create open spaces (P2, P4)	City develops new mobility policy to enhance active transportation on greenways and park connector corridors (P4)
		Quality index created to assign priority rank to park access corridors for investment (P3)		Increased positive rating of park access corridors that received streetscape improvements (P3)	

Dotte Agency, a community design collaborative in Wyandotte County, Kansas, worked throughout 2017 with community members to install signage and built elements in two underserved neighborhood parks. With a focus on health and community engagement, the products of the effort were active living trails. (Photo: Matt Kleinmann, Dotte Agency)

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Appendices

Contents of this Appendix

Glossary of Key Terms

Access: The right or opportunity to attain or benefit from something, as well as a concrete means of approaching or entering a place or space.

Accessibility: The presence of conditions, such as design features like ramps or audio signals at intersections, that support equal access to and use of a space for users with disabilities.

Context: The surrounding circumstances of a situation. In spatial planning for cities and health, context describes the broader spatial situation, such as the surrounding neighborhood, city, state, or national conditions, reflected through statistics and data (demographics, health data, environmental data, etc.).

Disparity: A gap in specific outcomes between two groups.

Drivers: The conditions, activities, and/or interventions that create pathways for achieving health equity in the context of public space.

Equity: Equal treatment or fairness, the achievement of which requires addressing barriers to equal treatment or fairness for historically marginalized groups.

Evaluation: The assessment of a change associated with an intervention.

Exclusion: The process of excluding and the opposite of inclusion. In the context of this work, exclusion has resulted in health disparities; thus, inclusion is framed as a pathway toward more equitable health outcomes.

Framework: An analytical tool for making conceptual distinctions and organizing ideas.

Health: Physical and mental health and well-being, distinct from health care.

Health equity: The assurance that all people have the basics for what they need to be healthy, recognizing that those needs are different for every person. According to scholar Paula Braveman, health equity is also a concept based on the ethical notion of distributive justice.[1]

Inclusion: The leveraging of resources (such as power, time, and money) and assets (social, cultural, and physical) to continuously reduce and eliminate systemic barriers to access, focusing on underserved and historically overlooked or excluded populations. Inclusion is both a process and an outcome.

Indicator: A quantitative or qualitative measure that simplifies and communicates the reality of a complex situation.[2]

Inequality and inequity: Inequity refers to a lack of fairness or justice. The World Health Organization defines health inequality as a difference in health status or in the distribution of health determinants among different population groups. Some health inequalities are attributable to biological variation or free choice. Inequity in health, on the other hand, refers to health variations attributable to the external environment and conditions outside the control of the individuals concerned. In the case of health inequities, the uneven distribution of causes and outcomes of poor health may be unnecessary and avoidable as well as unjust and unfair.

Intervention: An action or process resulting in a measurable or observable change, such as to a physical space or program.

Lived experience: The key concept of a theoretical approach called "ecosocial theory" developed by Nancy Krieger, a public health academic, that suggests that who we are, where we are, and our accumulated experiences and exposures in those environments determine our health, both on an absolute scale and relative to others.

Metric: Metrics are units or standards of measurement. A metric reflect a single, specific type of data.

Participation: The act of taking part in something.

Place: The spatial manifestation of history, power dynamics, and investment in a specific location. Place is rooted in geography but is not stagnant and does not have a singular identity. Rather, place reflects cultural, economic, and political ideologies and agendas.

Placemaking: From Project for Public Spaces, placemaking refers to a collaborative process by which people shape the public realm to realize a shared value. Placemaking promotes creative patterns of use, paying attention to the many identities, histories, and cultures that define a place and support its evolution.[3]

Practice: Practice is the application or implementation of an idea, concept, strategy, or design.

Public Space: An accessible, shared physical space where people can socialize, exercise, play, relax, volunteer, buy and sell goods and services, make connections, express their political views, appreciate art or architecture, or simply enjoy being outdoors. Public space is made up of the spaces that shape our everyday experience in our neighborhoods and communities: sidewalks and public squares, parks and other green spaces, and spaces that are part of our transportation networks, including everything from streets and bike lanes to bus stops and rail stations.

Public health: The health of the population. The field of public health promotes and protects the health of people and the communities where they live, learn, work, and play.

Quality: A standard of something as measured against other similar things.

Representation: The involvement of people who act on behalf of a particular group and its interests, culture, history, ideas, priorities, etc., in the processes that shape civil society. In public space projects, representation may refer to a balance of design ideas that reflect local community identities, the influence of community members in design or programming outcomes, or the broader recognition of the authority of local leadership in decision-making processes.

Social cohesion: The willingness of members of a society to cooperate with each other to survive and prosper. A cohesive society is one that works toward the well-being of all its members, fights exclusion and marginalization, creates a sense of belonging, promotes trust, and offers opportunity for social mobility. Social cohesion is a desirable end as well as a means to inclusive development and community change.[4]

Social justice: The just distribution of wealth, opportunities, and privileges across groups.

Social resilience: The ability to cope with and adapt to societal, environmental, or economic stresses. Social resilience has three key dimensions: 1) coping capacity, or an ability to cope with and overcome challenges and adversity; 2) adaptive capacity, or an ability to learn from experience; 3) transformative capacity, or an ability to craft tools, institutions, etc., that foster individual and community robustness in the face of future crises or changes.[5]

Urban planning: The process to control, regulate, or mitigate the development of cities through creative and technical tools (e.g., design, local regulations, zoning) and through direct interventions (e.g., facilitating community-led processes).

Urban design: The shaping the physical settings for public life in towns and cities, streets and other public spaces, giving form and character to the elements of the public realm.

Research Methodology

The Inclusive Healthy Places Framework was developed through an over a yearlong, multi-method research process that included:

- Scans of high-level literature on placemaking, planning, health, and inclusion
- Interviews with US and international practitioners at the intersection of public health and public space
- Review of existing global practices at the intersection of inclusion, health, and place
- Creation of shared experiences of strategies and tactics to promote inclusion in public space plans, projects, and processes with workshops and study tours in Philadelphia (U.S.) Copenhagen (Denmark), Malmö (Sweden), and Coimbra (Portugal)
- Definition of terms and guiding principles to shape a common language of "inclusive healthy place" for practitioners across fields
- Comparison of over 50 existing U.S. and international frameworks for evaluating aspects of place, health, and inclusion in the built environment

1. Framework Research Methods

Review of literature and evaluation framework models. The review of existing literature and framework models took place in three parts, during Phase 1A–1C.

Phase 1A

- First phase of frameworks research during which a working definition of inclusive healthy placemaking was established.
- Review of existing practices that assess components of inclu sion and health.
- Central question posed during this research phase was: how are key terms defined and measured?
- 28 interviews conducted in Phase 1A; some interviewees discussed evaluation tools that they developed or existing tools they use in their own work.
- At the Practicum (a gathering of professionals discussed later), participants defined terms and proposed metrics and measures to inform and focus planning of research inquiry f or Phase 1B., term definitions crafted by participants and proposed metrics and measures help to inform and focus planning of research inquiry for Phase 1B.

Phase 1B

- More comprehensive examination of existing evaluation frameworks; scope of literature and framework review expanded. Review of 40+ evaluation frameworks; each frame work analyzed based on intended use, scale of application, types of indicators, and metrics listed.
- During the Study Tour, patterns in repeated use of indicators (e.g., opportunities for physical activity) and metrics (e.g., acreage of open space) were also identified and taken into consideration within the scope of the analysis.

Phase 1C

- Final draft of the Framework developed, additional research undertaken in order to connect existing research findings to individual metrics, measures, and drivers.
- Purpose of this phase is to draw linear connections between research findings from all phases of research to the components of the evaluation framework.
- Creates a research trail that Framework users can employ to further their own work in this arena.

Site-based data collection through on-site exercises during the Practicum and Study Tour

Practicum, Philadelphia, PA
May 4, 2017

- Participants were divided into small groups of four to six participants and asked to define one of four terms: *inclusive*, *healthy*, *place*, or *placemakin*g.
- Definitions drafted for each term were shared with the larger Practicum group and used to define the themes and categories included in the framework, the indicators, and metrics.
- Participants suggested ideas for measures and metrics through on-site exercise at Village of Arts and Humanities.

Study Tour, Copenhagen and Malmö
June 13–16, 2017

- Participants engaged in three exercises to inform development of the evaluation framework.
- June 14, 2017: Study Tour Exercise 2: Identifying if IHPM Principles are Present.
- Exercise informed indicators and metrics in the draft Framework.
- Exercises explored how and whether values-based principles can be communicated and assessed via direct observation and data collection.
- June 15, 2017: Study Tour Exercise 3: How Can We Measure Certain Indicators?

– Participants were asked to measure how draft indicators based on the Practicum field exercise were present at the site visited (Vesterbro, a neighborhood in Copenhagen).
– Participants focused on indicators that are not visually obvious or well-studied (e.g., guardianship, history, social well-being).
– June 16, 2017: Study Tour Exercise 4: Editing the Draft Inclusive Healthy Place Definition.
– Participants gave feedback on the draft working definition for inclusive healthy place..
– Revisions and comments used to prioritize indicators included in Framework and to inform literature and frameworks review to match priorities identified in definition revisions.

2. List of Participants

Sounding Board

We convened and consulted with a core group of expert advisors at multiple stages of the research phase and launch of the Framework.

David Burney
Founder and Board Chair, Center for Active Design
Associate Professor, Pratt Institute, Center for Planning

Lynne Dearborn
Chair of PhD Programs in Architecture and Landscape Architecture, University of Illinois at Urbana-Champaign

Dr. Ana Diez Roux
Dean and Distinguished Professor of Epidemiology, Urban Health Collaborative, Drexel, Dornside School of Public Health

Cara Ferrentino
Program Officer - Public Space, William Penn Foundation

Javier Lopez
Assistant Commissioner, NYC Department of Health and Mental Hygiene, Center for Health Equity

Helle Lis Søholt
Founding Partner and CEO, Gehl

Vivian L. Towe
Policy Researcher, Behavioral and Policy Sciences Research Department, RAND Corporation

Sarah Treuhaft
Senior Director, PolicyLink

Risa Wilkerson
Executive Director, Active Living by Design

Practicum

The Philadelphia-based Practicum in May 2017 gathered 17 practitioners and researchers from related fields to advise on the shaping of the research and outputs. Participants were:

– Jen Aspengren, Minnesota Director, ChangeX
– Lynne Dearborn (Sounding Board)
– Ana Diez Roux (Sounding Board)
– Cara Ferrentino (Sounding Board)
– Stephanie Gidigbi, SPARCC Policy, Capacity, and Systems Change Director and Senior Adviser - Urban Solutions Natural Resources Defense Council
– Amanda High, Chief of Strategic Initiatives, Reinvestment Fund
– Maria Rosario Jackson, Senior Advisor to the Arts and Culture Program, Kresge Foundation
– Bryan Lee, Jr., Place + Civic Design Director, Arts Council of New Orleans
– Stephen Linder, Director of the Institute for Health Policy, University of Texas at Houston
– Javier Lopez (Sounding Board)
– Katie Lorah, Director of Communications and Creative Strategy, ioby
– Patrick Morgan, Program Director of Philadelphia, Knight Foundation
– Mike O'Bryan, Program Manager for Youth Arts Education, The Village of Arts and Humanities
– Aparna Palantino, Deputy Commissioner of Capital Infrastructure and Natural Lands Management, City of Philadelphia Department of Parks and Recreation
– Vivian L Towe, PhD (Sounding Board)
– Jeremy Liu, Senior Fellow, PolicyLink
– Risa Wilkerson (Sounding Board)

Study Tour

This collaborative learning experience brought experts from the United States to learn from projects in Scandinavia. Participants were:

– Kiley Arroyo, Founding Director, Cultural Strategies Council
– David Burney (Sounding Board)

- Jayne Engle, Program Director - Cities for People, The J.W. McConnell Foundation
- Grant Ervin, Chief Resilience Officer and Assistant Director for City Planning, City of Pittsburgh
- Cara Ferrentino (Sounding Board)
- Stephanie Gidigbi, SPARCC Policy, Capacity, and Systems Change Director and Senior Adviser - Urban Solutions, Natural Resources Defence Council l
- Martin Pedersen, Executive Director, Common Edge Collaborative
- Susan Rogers, Director - Community Design Resource Center, University of Houston
- Kalima Rose, Vice President for Strategic Initiatives, PolicyLink
- Hector Sanchez, Executive Director, Labor Council for Latin American Advancement, Chair - National Hispanic Leadership Agenda
- Ascala Sisk, Vice President of Community Initiatives, NeighborWorks America
- John Robert Smith, Chair - Transportation for America, Senior Policy Advisor - Smart Growth America
- Vivian L. Towe (Sounding Board)
- Janine White, Executive Editor, Next City
- Bridget Wiedeman, Senior Director of Health Services, Reinvestment Fund
- Risa Wilkerson (Sounding Board)
- Shin-pei Tsay, Executive Director, Gehl Institute
- Julia Day, Associate, Gehl
- Andrea Marpillero-Colomina, The New School
- Sharon Roerty, Program Officer, Robert Wood Johnson Foundation
- Tracy Orleans, Program Officer, Robert Wood Johnson Foundation
- Karabi Acharya, Program Officer, Robert Wood Johnson Foundation
- Karen Ellis, MMS Education

3. List of Interviewees

(listed by US or international practice, then alphabetically within each section)

US-based practitioners and scholars

Arroyo, Kiley. Executive Director of the Cultural Strategies Council; Senior Research Fellow of Rural Policy Research Institute (RPRI) at the University of Iowa. April 10, 2017.

Bernardinello, Milena. Healthy Community Planner for the City of Madison, WI. April 3, 2017.

Burney, David. Associate Professor at the Grad Center for Planning at Pratt Institute; Mayor Bloomberg's Commissioner at the Department of Design and Construction; Interim Executive Director of NYC branch of the American Institute of Architects; Founder and Board Chair of the Center for Active Design. April 12, 2017.

Dearborn, Lynne. Associate Professor at Illinois School of Architecture, University of Illinois at Urbana-Champaign. April 3, 2017.

Diez Roux, Ana. Dean and Distinguished University Professor of Epidemiology at the Dornsife School of Public Health at Drexel University. April 10, 2017.

Ferrentino, Cara. Program Officer for Public Space at the William Penn Foundation. April 24, 2017.

Fullilove, Mindy. Professor at Milano School of International Affairs, Management, and Urban Policy at The New School. March 13, 2017.

Hand, Jamie. Research Director at ArtPlace. March 31, 2017.

Lopez, Javier. Assistant Commissioner of the Bureau of Systems Partnerships - Center for Health Equity at the New York City Department of Health and Mental Hygiene. April 10, 2017.

Odbert, Chelina. Co-founder and Executive Director of Kounkuey Design Initiative. April 3, 2017.

Schiavo, Renata. Founding President, Board of Directors of Health Equity Initiative. March 31, 2017.

Towe, Vivian L. Policy Researcher in the Behavioral and Policy Sciences Research Department at RAND Corporation. March 29, 2017.

Treuhaft, Sarah. Senor Director at PolicyLink. April 4, 2017.

Wall Shui, Meg. Epidemiologist at San Francisco Department of Health (leads the SF Indicator Project). April 4, 2017.

Wilkerson, Risa. Executive Director of Active Living by Design. March 14, 2017.

Global scan: practitioners and scholars working outside the US

Bundesen Svarre, Birgitte. Associate at Gehl. March 1, 2017.

Cañez, Jorge. Peatónito; Coordinator of Shared City for Laboratorio para la Ciudad. April 7, 2017.

Diaz, Oscar. Special Advisor to the Mayor on Mobility (under Bogotá Mayor Enrique Penalosa). April 5, 2017.

Dutoit, Allison. Lecturer at University of West England Bristol; Urban Space Expert at Gehl. April 5, 2017.

Estupiñan, Nicolas. Senior Specialist in Transportation at CAF -Banco de Desarrollo de América Latina. March 31, 2017.

Kellergis, Achilles. Scholar in the Urban Expansion Program at NYU Marron Institute. March 31, 2017.

Madriz, Mayra. Associate at Gehl. March 31, 2017.

McKay, Layla. Director of the Centre for Urban Design and Mental Health. April 13, 2017.

Nielsen, Ulrik. Associate at Gehl. April 5, 2017.

Reigstad, Solvejg. Associate at Gehl. March 31, 2017.

Vamberg, Henriette. Partner and Managing Director at Gehl. March 22, 2017.

Vogel Kielgast, Louise. Associate at Gehl. March 1, 2017.

Westermark, Ewa. Partner at Gehl. March 2, 2017.

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Building Environmentally Sustainable Communities: A Framework for Inclusivity, Furman Center,
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Building Healthy Places Toolkit, Urban Land Institute + Center For Active Design, 2010.

Building Healthy Places: Building Healthy Corridors, Urban Land Institute, ongoing.

Building The Community: Design School at Flushing Meadows Corona Park, Design Trust for Public Space. 2017

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The Transportation and Health Tool (THAT), US Department of Transportation.

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