

DECADE *of* DESIGN

Health and Urbanism



THE AMERICAN
INSTITUTE
OF ARCHITECTS

MIT Center for Advanced Urbanism

CAU

CLINTON GLOBAL INITIATIVE
Commitment to Action

THE URBAN ERA

More than half of the world's inhabitants live in urban areas and this is projected to grow to 70% by 2050. Urban environments are being planned, designed, constructed and retrofitted at an unprecedented pace and scale. Pressing cultural and environmental concerns are demanding new levels of accountability as we measure ecological performance, energy use, mobility and density relationships and the use of dwindling resources. We are in a new era of urban growth whereby the rules have changed and the paradigms of urbanism desperately need recalibration to meet today's global challenges.

“As architects, we have a critical role in creating cities that support well-being, from individual buildings to how they form neighborhoods and the way those neighborhoods connect to the urban fabric. The built environment is key to creating a healthier future.”

*Robert Ivy, FAIA
Chief Executive Officer
The American Institute of Architects*

URGENCY: HEALTH

Healthcare costs continue to rise. The Center for Disease Control (CDC) estimates that three-quarters of U.S. spending on health care goes towards treating chronic diseases, which are now the leading cause of death and disability in the U.S., with 70% of deaths attributed to chronic disease. Obesity is at epidemic levels. Non-communicable diseases (NCD's) such as diabetes, asthma and other lung diseases, cardiovascular diseases, cancers, and depression are on the rise and exact a significant toll on quality of life and viability of communities in the U.S. and globally. Worldwide, NCD's account for 60% of deaths, with especially high impact in low and middle-income countries, and higher prevalence in urban settings. Given the current pattern of urbanization, there is a critical need to address risk factors and potential solutions.

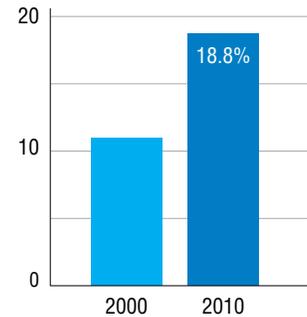
HEALTH AND THE BUILT ENVIRONMENT

When we think of health, often the first thing that comes to mind is the medical industry and treating illness when people are unwell. But we can turn this idea around and focus instead on preventive strategies that reduce the incidence of sickness in the first place. Urban planning historically grew out of a public health crisis, related to tenement aggregation and overcrowding in industrial cities. Public and environmental health concerns led to fierce advocacy for a dispersed urban order or less-dense forms of city-making. Since the 1970's, however, compact cities have returned as a desirable counter model. Whether dense or dispersed, there is a growing appreciation for the value of planning and designing cities to support physical activity, sunlight, clean air, use of sustainable and safe building materials, access to healthy foods, safety and social connectedness. This is an epochal moment for understanding and addressing the health consequences of our cities and to put knowledge, measurement, and innovation to work creating environments that support human and environmental health, and resilient communities.

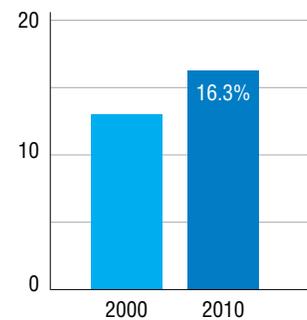


Dedicated Bike Lanes, New York City; photo by Francisca Sumar.

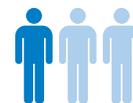
Percent of Population Diagnosed with Diabetes in the U.S.



Percent of Population Diagnosed with Coronary Heart Disease in the U.S.



Proportion of U.S. Children Considered Overweight or Obese Today



1/3 Children

Projected Proportion of U.S. Adults Considered Obese, 2030



2/5 Adults

COLLABORATION:

The American Institute of Architects + MIT's Center for Advanced Urbanism + Clinton Global Initiative

Combining purpose, research, creativity and action – this collaboration is poised for significant outcomes.

The American Institute of Architects (AIA)

Architects are trained to use design thinking that synthesizes fragmented parts into a coherent whole, to integrate a variety of needs and voices, to creatively solve problems in a practical way and to bring ideas alive. With this perspective, architects have a key role to play in re-envisioning and creating a healthier, more resource-efficient, resilient future, working with community stakeholders and professionals from a wide range of disciplines. The AIA embraces the responsibility that comes with this opportunity to build the future. As the leading professional organization of architects, with 80,000+ members, a national organization and nearly 300 state and local components, U.S. based with global relationships, the AIA is an influential source of advocacy, education and service. Building on years of working with cities and communities to address local problems, the AIA in 2012 launched Decade of Design: Global Urban Solutions Challenge. It is a sustained ten-year initiative to develop achievable solutions for cities, with a focus on public health, environmental resources and resilience. Key activities include supporting university-based research, disseminating shared learning and demonstrating concrete solutions.

Clinton Global Initiative (CGI)

As a member of the Clinton Global Initiative (CGI), Decade of Design is the AIA's Commitment to Action. Established in 2005 by President Bill Clinton, CGI convenes global leaders to create and implement solutions to the world's most pressing challenges. CGI annual meetings have brought together more than 150 heads of state, 20 Nobel Prize laureates, and hundreds of leading CEOs, heads of foundations and NGOs, major philanthropists and members of the media. To date, CGI members have made more than 2,100 commitments, which are already improving the lives of nearly 400 million people in more than 180 countries.

MIT's Center for Advanced Urbanism (CAU)

The CAU is a critical partner with the AIA on Decade of Design – the CGI Commitment to Action, with a laser focus on Health + Urbanism. MIT pursues the integration of knowledge through inquiry and design around real world problems, and is a renowned center of cutting edge research and innovation. Established within MIT's School of Architecture & Planning, the CAU draws students and faculty from diverse backgrounds and professional interests to work together to solve pressing urban challenges through design. CAU's aim is not to merely analyze and deduce vague solutions or prototypes, but to deliver specific designs and concrete plans. CAU is committed to translating institutional research and scholarship into built form. Like the craftsman of the past, and indeed as goes MIT's motto: CAU's pedagogy is 'learning by doing.'

“The Health and Urbanism project at MIT has tremendous potential for a greater understanding of the relationship between how cities perform, operate, are designed—and their ultimate impact upon citizen's health and well being.”

*Andrew Scott
Associate Professor
MIT, Department of Architecture*



*High Line Falcone Flyover, New York,
photo by Iwan Baan*



*Portland Mall Revitalization, Portland;
architect: ZGF Architects, LLP, photo by
Bruce Forester Photography, Inc.*

THE MISSION AND THE PLAN

Through research, prototypes and demonstration projects, this multi-year initiative will investigate and document the correlations between the built environment and health, and develop evidence-based guidelines and design solutions that support human and environmental health in and around cities. Working with selected urban areas, this project seeks to identify and activate effective strategies that are locally relevant and globally scalable. Collaboration and knowledge sharing is a fundamental intention of this project. The issues and opportunities call for perspective from a wide range of stakeholders and disciplines, including urban planning, public health, medicine, technology, finance, government, business, transportation, building product manufacturing, construction, engineering, among others. Learning will be shared on-line and in print, at conferences and workshops, in person and virtually.

Phase 1 – Research

Starting Spring, 2013, researchers will examine existing literature and case studies and investigate new correlations between health and urbanism. An early effort will comparatively analyze health geo-data with patterns of urbanization, including: density, disease, congestion, environmental factors, land use and other factors in several American regions. Emerging hypotheses of correlations will be established and developed in more detail, coupled with recommendations of more detailed urban studies to be done later. This phase of work will result in metro-area-scaled guidelines that reveal existing problems and opportunities awaiting attention, prioritizing better health in both urban and suburban environments.

Phase 2 – Prototypes, proposals, tools

As soon as early guidelines emerge (after one year of research workshops and studios), we will work as a team to transform on-the-ground research into real project hypotheses and ideas, testing design and planning scenarios and prototypes. The intellectual effort of these workshops / studios is to take existing development patterns, as well as proposed alternative design models (compact city, etc.) and review them against the emerging hypotheses. As a result, we would propose to alter these models in a series of steps, in order to immunize them against the health threats discovered. The results of this phase may include urban design and building modeling, neighborhood retrofitting, infrastructure proposals, policy recommendations, smart governance and environmental systems management tools.

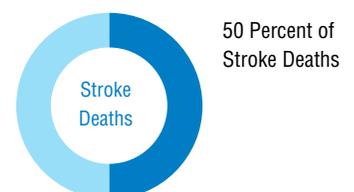
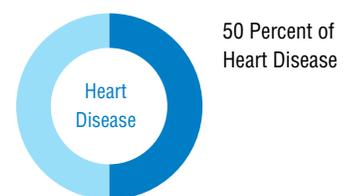
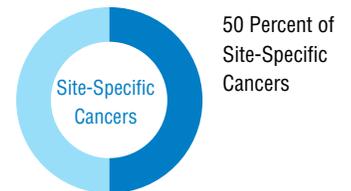
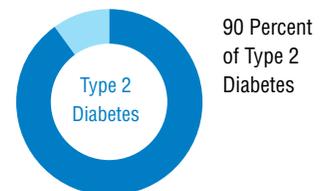
Phase 3 – Pilot projects

Upon critical review with the selected city location and research sponsors, these proposals would be further developed from a conceptual design, towards concrete, realistic plans, prototypes, or pilot projects. The first pilot projects could be implemented a few years into the research. It is our intention to implement these intelligently, so that first evaluations of their usefulness can be input into the next wave of projects, and most importantly, into the overall retro-fitting strategy.

“We are interested in evaluating health factors that are traceable to different urban environments and explaining health myths that lead to professional biases about urban forms.”

*Alan Berger
Director of Research,
Center for Advanced Urbanism
Associate Professor of Landscape
Architecture and Urban Design,
MIT, Department of Urban Studies
and Planning*

A Community Designed for Exercise Can Prevent:



OUTCOMES

This project will develop research that leads to new models for urban and regional design. These new models will be aimed at supporting human, economic and environmental health improvements in our cities. Our goal is to transform real communities through concerted action and participation with local stakeholders and public-private partnerships, always with a wide range of interdisciplinary perspectives.

PARTNERSHIPS

Collaboration is at the core of this project – with knowledge, creative thinking and funding. In addition to funding from the AIA and MIT, financial participation by organizations with shared interests in this project is welcomed and necessary to fulfill the promise of this initiative.

For partnership information, please contact:

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Neighborhood Activity, Nashville; photo by Metro Nashville Planning Department

“There is a historical relation between the foundations of urban planning and the rise of public health concerns. Today, about 150 years after both fields emerged *together*, it is exciting to see us probing a new form of convergence. This time we are investigating the scale of urban design, architecture, as well as planning, in relation to health today, whether related to obesity, or to climate change, etc. I can’t wait to relieve us from the cliches that currently limit our thinking and ground the conversation on a more solid basis. ”

*Alexander D’Hooghe
Director, Center for Advanced Urbanism
Associate Professor,
MIT, Department of Architecture*



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