FitNation/NOLA
HEALTHY COMMUNITIES
THROUGH DESIGN
Introduction

The Health Case for Active Design

Designing Active Communities in the U.S.

Designing Active Communities across the Globe

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Introduction

Fit Nation NOLA, held on May 14th, 2011 in New Orleans, Louisiana, was the second in a series of national conferences examining how design of the built environment can create opportunities for increasing physical activity and improving public health. Building from a series of Fit City conferences organized over the last five years in New York City, Fit Nation NOLA brought together public officials, health professionals, architects, landscape architects, developers, urban designers, planners, and others to address how building, site, and neighborhood design and policy decisions can increase physical activity and access to healthy foods. Obesity is the second leading cause of death in the U.S. after tobacco, and physical inactivity is the fifth leading cause. Physical inactivity also contributes to the second, third, and fourth leading causes of death—respectively, obesity, high blood pressure, and high blood glucose. These risk factors are linked to chronic diseases such as diabetes, heart disease, some cancers, and asthma.

Co-hosted by the NYC Department of Health and Mental Hygiene, the American Institute Architects New York Chapter (AIANY), AIA National, AIA New Orleans, and the Prevention Research Center at Tulane University, Fit Nation NOLA featured design and health practitioners working in the U.S. and around the world to create healthier communities through design. This publication includes highlights from the event’s presentations and speakers’ remarks.

NYC Active Design Mentoring Program

Fit Nation NOLA also convened representatives from 14 communities that are working with the NYC Active Design Program through a Mentoring Grant funded by the U.S. Centers for Disease Control and Prevention’s Communities Putting Prevention to Work program. The NYC Active Design Program has formed this partnership network to support the exchange of best practices and to provide technical assistance and peer mentoring on the connection between health and built environment issues. The conference assembled staff from these communities’ health, transportation, public works, and planning agencies to foster inter-agency partnerships on these issues.

The network includes representatives from the following communities: Boston, MA; Cherokee Nation, OR; Chicago, IL; Cook County, IL; Douglas County, NE (Omaha); Jefferson County, AL (Birmingham); King County, WA (Seattle); Louisville, KY; Miami-Dade County, FL; Multnomah County, OR (Portland); Nashville, TN; Philadelphia, PA; Pima County, AZ (Tucson); and San Diego, CA.

Made possible by funding from the U.S. Department of Health and Human Services
Karen Lee, MD, MHSc, FRCP, Director, Built Environment Program, NYC Department of Health and Mental Hygiene

This conference is a dialogue to promote discussion between health professionals and architects, landscape architects, urban designers, urban planners, green buildings professionals and developers on how we can create spaces that address the multiple priorities that our world today faces, including the growing epidemics of non-communicable diseases like heart diseases and strokes, cancers and diabetes globally. These are the leading causes of death in the developed world, and also increasingly in the developing world. We at the same time face issues of social equity and environmental sustainability that can concomitantly be addressed through Active Design.

Margaret O’Donoghue Castillo, AIA, LEED AP, 2011 President, AIA New York Chapter

AIA New York has been a partner with the New York City Department of Health and Mental Hygiene in organizing Fit City conferences in New York over the last six years. As architects we know that the spaces we design have enormous consequences on some of the most important issues facing our country and globe; our energy consumption, the environment, the livability of our communities and the health of our citizens. Whether it’s through design that encourages walking, bicycling, active recreation or stair climbing, Active Design is about being smarter and more efficient in the design decisions we make to get better outcomes for our citizens and communities, which are even more important today with our economy, limited budgets and resources.

Markku Allison, AIA

Resource Architect, AIA National

On behalf of the American Institute of Architects, I applaud the Fit Nation and Fit City Initiative. It is a very complementary effort to some new work going on at AIA National, where I head up an effort called America’s Design and Health Initiative. It’s a very exciting program focused on the connections between physical activity, obesity and design.

INTRODUCTION

Through design that encourages walking, recreation or stair climbing, Active Design is about being smarter and more efficient in the design decisions we make to get better outcomes for our citizens and communities.

AIANY Executive Director Rick Bell welcomes the audience to Fit Nation/NOLA.

Credit: Randi Rosenblum
Active Design is environmental design that encourages stair climbing, walking, bicycling, transit use, active recreation, and healthy food and beverage consumption. In January 2010, the Active Design Guidelines (www.nyc.gov/adg) were released, which present design strategies for neighborhoods, streets, and buildings to help facilitate healthier lives for residents, making healthier choices easier choices. A product of New York City’s Departments of Health and Mental Hygiene, Design + Construction, Transportation, and City Planning, the Active Design Guidelines were developed following a two-year process that involved more than 12 New York City agencies, the American Institute of Architects New York Chapter (AIANY) as well as academic partners, community organizations, professional associations, and private sector partners.

Download the Guidelines at: www.nyc.gov/adg

Obesity and type 2 diabetes are now epidemic throughout the country, and both problems have been growing worse rapidly. Mounting scientific evidence, as referenced in the Guidelines, demonstrates the important impact that design of the built environment has on physical activity and nutrition. Today, architectural and urban design too often support unhealthy rather than healthy diets, and sedentary rather than active daily lifestyles. The Active Design Guidelines aim to reverse these trends by providing architects, planners, building owners and managers, and other real estate professionals with a manual for creating healthier buildings, streets, neighborhoods, and urban spaces. At the same time, the Guidelines synergistically improve environmental sustainability and universal accessibility, and create more vibrant, desirable places to live.

Louise Cox, FAIA, RIBA, Intl. Assoc AIA, President, International Union of Architects, the International Union of Architects is committed to making our world sustainable by design and to ensure that architects take a responsible attitude. When fundamental questions about our future, health, food, energy supply, social relations, natural resources and the environment are raised, it is the architect’s task to come up with spatial design solutions that can help address these issues. Architecture can make a difference and we must work with the government, with the private sector, and with communities to help solve these issues—we can’t do it just by ourselves.

Active Design: Building Healthier Communities

David Burney, FAIA, Commissioner, Department of Design + Construction, New York, NY

I’m an architect, and I think one of the worst things that happened to modern architecture was the invention of the elevator for people who do not need it. When the elevator came along the staircase, which historically was the most prominent feature of many buildings, was relegated to the back of the building, in the corner, typically with no windows. We would like to reverse that and to see the staircase come back into prominence. Even with staircases in existing buildings, you can open its door, put in fire-rated glass, include artwork and other strategies to make stairs more visible, attractive and appealing. Motivational signage encouraging people to take the stairs is also very important.

New Orleans Health Department Commissioner Karen DelaValle addresses the Fit Nation NOLA audience. Credit: Randi Rosenblum
Richard Jackson, MD, MPH, Professor and Chair, Environmental Health Sciences, University of California Los Angeles

We are facing an unprecedented obesity crisis, which is costing us in lives and in dollars. A person who is obese has a higher risk of liver disease, high blood pressure, heart disease, bad joints, and even having a baby with a birth defect. A third of all of our cancers are related to obesity. Diabetes is the major obesity-related risk. Today in Louisiana, one person in ten has diabetes, a disease that’s going to cost them their sight (through retinopathy), their kidneys, their feet and eventually their lives. We are now spending 2 percent of the entire GDP of the United States on nothing but diabetes.

Two out of every seven young men and women who apply to the United States military cannot get in because of obesity and their lack of fitness. We’ve gone from two thirds of our kids walking and biking to school to about one in six. The number of obese teenagers has tripled, and the number of obese pre-teens has quadrupled. The issue is that we’ve created environments that make it impossible for people to eat well and to exercise adequately. As the U.S. has sprawled out, we have tripled the amount of driving that the average American has done. Every woman in this room that’s a mother is driving twice as much as her mother did, who drove twice as much as her mother did, because we have essentially moved kids off their legs and into cars. We have engineered physical activity out of our daily lives.

These changes are not just increasing our health care and medical costs; a sprawling, car-dependent country also means that we’re spending more than ever on transportation costs. Americans spend more of our income on transportation than any other people in the world, about 25 percent of household budgets. It’s even worse for poor people, who spend 36 percent of their income on transportation. The less we invest in smart transportation, the fatter, more unfit, sicker, sadder, poorer and more time-stressed we become.

The good news is that we know how to design communities that encourage physical activity and improve access to healthy food. But we need to have health folks link up with their architecture, design, transportation colleagues. We need to arm ourselves with the right data to demonstrate that when you make it easier to walk and bicycle and take the stairs, that people will do so and the result will be a multitude of benefits, health and otherwise. Finally, we need to have political muscle to convince our leaders to make these changes.

1.5 billion people will be obese by 2015

42 million children under the age of five are obese

2.6 million people die each year due to obesity

The Health Case for Active Design

Obesity Worldwide

Let's Go NOLA
Carolyn C. Johnson, PhD, FAHA, Director, Tulane Prevention Research Center
At its inception, Tulane’s Prevention Research Center was focused on children and looking at asthma and environmental exposure to lead. Due to the growing problem of obesity, both child and adult, we changed our focus and for the last seven years we’ve been looking at the physical and social environments and their influences on behaviors related to obesity, namely physical activity and eating. We worked with the city to build a walking path in Tremé, one of our neighborhoods, that is now being used by walking clubs in that area. We continue to work with the Safe Routes to Schools program to get sidewalks and streets built and expanded around schools and playgrounds. We’re in the process of evaluating new bike lanes on all major thoroughfares. We’re working to improve access to healthy foods in underserved neighborhoods throughout New Orleans.

Karen B. DeSalvo, MD, MPH, MSc, Commissioner of Health and Senior Health Policy Advisor, City of New Orleans, LA
In 2005, when Hurricane Katrina wiped out 200,000 households and the surrounding social infrastructure in those communities, it forced us to think about health in a way that is much broader than traditional healthcare. As we began to rebuild New Orleans, it was a natural part of our thinking that the social determinants of health were just as critical as healthcare infrastructure like hospitals. I’m not a designer or an architect, but I am a physician and trained in public health, and one of the most exciting things that is happening in public health is the fact that we are moving away from thinking about counseling, education and clinical interventions as the only ways to change the public’s health. We are now understanding the importance of changing the built environment and tackling socioeconomic factors in order to make people healthy.

Our population in New Orleans is overweight, not terribly active, and many people do not have access to healthy food, recreational opportunities, or sidewalks and bike lanes. As a result we have chronic disease rates that far exceed the national average. Those high obesity and disease rates are compounded by the fact that in Louisiana and New Orleans there are more minorities, poor people, and uninsured folks reliant on the public system for healthcare than most other places in the country.

We’re now working to rebuild our city, but given our skinny budget and tiny staff, we need to build an inventory of what exists, leverage it with additional resources and make sure that we’re working towards a shared community agenda. We’re doing this in tight partnership with neighborhood organizations. We started “Let’s Go NOLA,” modeled on First Lady Michelle Obama’s Let’s Move! National Initiative. One of the first things we’ve done is doubled the New Orleans New Orleans students, educators, and Health Commissioner Karen De Salvo (background) lead a walking group to ARISe Academy for International Walk to School Day. Credit: Prevention Research Center at Tulane University

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Recreational Department, so that we could open more pools this summer and triple the number of kids who have a chance to play in summer camps. We want to get to a place in which we're working to improve the public's health where they live, learn, work, and play.

Equity, Design, and Health in Portland, Oregon
Deborah Blain, District Planning Manager, Bureau of Planning and Sustainability, Portland, Oregon

Portland has a strong reputation in planning and design circles because we made some really sound decisions about investments and about design starting back in the 1980's. These were decisions that really have promoted Portland as a walkable, bikeable and livable city. In 1974 we made the pretty bold decision to tear down an operating freeway, and put a park in its place. We have a really great light rail system, a streetcar, and some amazing bicycle infrastructure—about 324 miles of improved bikeways.

Portland has a number of design requirements that have catalyzed urban scale, pedestrian friendly, multi-use development. Since 1981, all of our commercial zones have allowed residential development to promote mixed-use, walkable places. We have bike parking requirements and zoning code strategies to ensure that the pedestrian experience is welcoming, pleasant, safe, and comfortable.

But these design and investment decisions have not always been made equitably, they have not been applied equitably across our city, and they were not really made with our community's health in mind. There is a transit dependent, lower income community in the east part of Portland that lacks sidewalks, bike lanes, and in some cases, paved streets. These are densely populated areas that lack some basic urban services. It trains a lot in Portland, and walking to get to school or pushing a stroller through these types of streets is really difficult, but many people who live in these areas have no other choice.

The Coalition of Communities of Color produced a stunning report about the disparities in the Portland region—disparities in education, in health, juvenile justice, employment, and housing. The Urban League published The State of Black Oregon, which similarly really revealed many disparities between African-Americans and white citizens in Portland and in Oregon as a whole. For Portland, which prides itself in being very progressive, it was particularly stunning. The data revealed that people of color in Portland fare far worse than the national averages, and these disparities are growing over time.

So what are we doing about this? We are working on an update of our major long range plan, and one of the underpinnings of this update is the theme of equity. The plan has three interrelated strategies—healthy connected neighborhoods; thriving, educated youth; and economic prosperity and affordability. Health is at the core of all of these strategies. Through this process, we have worked to bring new voices to the table, from health professionals to equity advocates who are advocating for sidewalks, healthy housing, transit.
Fitnation/noLa

Mayor Karl Dean leads the inaugural ride of the Nashville Green bike program in Downtown Nashville in July 2011. Credit: Jonathan Rodgers

community organizations in lower income areas.

One of the things we’ve found is that equity advocates are advocating for the very same things that a number of other constituencies are advocating for—sidewalks, healthy housing, transit. We are working to immediately develop some new tools to figure out how to improve incomplete streets and sidewalks. We also need to better design our multi-family housing, to create open spaces that create real opportunities for play, exercise, relaxation, and planting a garden.

Nashville, Tennessee: Prioritizing Healthy Community Design
Adetokunbo Omishakin, Assistant Commissioner/Chief Bureau of Environment & Planning, Tennessee Department of Transportation

Tennessee shares the unique distinction with Alabama as the second most obese state in this country. We also have the highest obesity rate in the entire country for Latinos and Hispanics. We face many challenges in working to counteract these trends, since we’ve only started to focus on creating a more walkable, bikeable region in recent years. Our plans for parks and greenways, sidewalks and bikeways were all created in 2002.

We have been fortunate to have over a 12-year period three mayors that really understand the importance of the built environment and the role it plays in the health of the community, and the livability of a community. With an executive order, Mayor Karl Dean initiated a Bicycle and Pedestrian Advisory Council, signed a Complete Streets order, and created a health council, which decided their main focus would be healthy eating and active living.

The Mayor recently challenged each person in the city to walk 100 miles with him over a three-month period. We have a website that’s keeping track of people’s miles and we have walked 6,500 miles as a city already. There are over 3,000 people in this city signed up to this whole campaign.

Nashville has started a bike share program; it currently has 100 bikes and we’re planning to add an additional 200 to the program. We created an inventory of community gardens throughout Nashville; we’re up to nearly 100 community gardens throughout the city. To compliment these changes, Mayor Dean also initiated a more balanced approach to spending transportation funds. Out of $50 million this year that we’re spending on transportation-related projects, $29 million, or 60 percent, is being dedicated to multi-modal transportation projects that include pedestrian, bicycle, or transit features. At the national level, less than 20 percent of federal transportation dollars are devoted to multi-modal projects.

From my perspective, one of the most important factors in creating healthier communities is the need for great leadership—from our mayors, elected officials, department heads, and community groups.

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Bogota, Colombia:
Creating a Walkable, Bikeable City
Thomas Schmid, PhD, Senior Health Scientist, U.S. Centers for Disease Control and Prevention

In Bogota, only 20 percent of households own a car. Motivated in part to be more economically competitive and attract businesses, the city developed the Trans Milenio, a bus rapid transit system. Bogota also embarked on an initiative to recover the city from the automobile to create more opportunities for green space and recreation for its citizens. The city’s goal was to increase green space in the community from 2.5 to 4.5 square meters per person.

The other thing that Bogota did was to create programs that encourage physical activity. Ciclovia closes streets to automobile traffic every Sunday from 7 AM to 2 PM and allows people to take over the streets for pedestrian and bicycling use. Recrevia is a series of guided exercise and social activities in nodes or parks along the Ciclovia.

What kinds of factors influence walking for transportation? We conducted a study that evaluated these factors in Bogota and in Curitiba, Brazil. Street density and connectivity is predictive of more physical activity, as is slope, meaning that larger hills suppress physical activity. You can look at a map and predict where people will walk according to those variables and factors.

In terms of encouraging bicycling, we also evaluated these factors in the two cities. Similar factors to walking, including density levels, slopes, and traffic accidents all influence people’s likelihood to bike.

How many miles of bikeway do we need? From the analysis we did, once you get to about two kilometers of bikeway in your neighborhood you can induce a fair amount of bikeway use.

The direct health benefits associated with physical activity are significant. For instance, one study found that in older men, walking two or more miles a day was associated with about a 50 percent reduction in mortality, while another study found a 31 percent reduction in cardiovascular disease rates in those who walk about 30 minutes a day.
Building Design: Creating Opportunities for Daily Physical Activity

The Building Design Chapter of the Active Design Guidelines highlights opportunities for incorporating regular physical activity into daily life that can be found not only outdoors but inside buildings as well. The following measures can help building occupants incorporate physical activity into their daily routines:

- Increase stair use among the able-bodied by providing conveniently located stairs, posting motivational signage at elevators and escalators to encourage stair use, and designing visible, appealing and comfortable stairs.
- Where feasible, incorporate ramps for active vertical circulation.
- Locate building functions to encourage walking to shared spaces such as mail and lunch rooms, and provide appealing, supportive walking routes within buildings.
- Provide facilities that support active recreation and transportation such as centrally visible physical activity spaces, as well as showers, locker rooms, secure bicycle storage, and drinking fountains.
- Design building exteriors and massing that contribute to a pedestrian-friendly urban environment and that include maximum variety and transparency, multiple entries, stoops, and canopies.

Using Art and Design to Encourage Physical Activity

Rosan Bosch, Artist and Managing Director, Rosan Bosch Ltd.

I’m a contemporary artist living in Copenhagen. I have a studio working with architects, designers and artists, and we try to change society through our designs. We know that it’s wrong for us to be physically inactive, but the problem is not in knowing what’s wrong. We know we should exercise everyday for at least half an hour. The challenge is for people to understand that this isn’t just about going to a gym, or playing sports, but that we can become healthier by making small changes in our everyday life.

- Free Zone Signs: These activity zone signs, which mimic traffic signs, comment on the way we use public space. The signs have been developed as an exhibition series under the name ‘Free Zone,’ an art project creating new and different types of public space. These signs were developed with physical activity in mind, but they are also about enjoying life and having fun. It is possible to be active on the streets, not only if you’re running late but as an integrated part of everyday life.

Maison du Danemark, Champs Elysées, Paris, France

The clients for this project wanted people to use the stairs instead of the elevator, but the hierarchy of the room tells you to go to the elevator. This is the way a lot of modern buildings are, and we need to think creatively about how to encourage stair use if major redesign is not an option. In this project, we painted a red path to lead people to the stairs, instead of to the elevator.
The inspiration was an Italian hillside town, in which people walk up and pass their neighbors’ homes and have relationships with those people who live next door to them. The building incorporates a continuous 600 meter ramp for walking and bicycling, which is open for use to anyone living in Copenhagen.

Encouraging Walking and Bicycling Through Building Design
Kai-Uwe Bergmann, AIA, RIBA, MAA, LEED AP, Partner, Director of Business Development, BIG

Our approach to architecture is what we call “Yes is More,” which in its essence is calling for a positive approach towards the process of creating a building or public space. It can also be defined as the desire to elevate everyone’s quality of life by making places where people will want to live, work, or play. In Copenhagen today, where our office is based, 37 percent of people bicycle to work or their studies and the goal is to have 50 percent do so by 2015. Copenhagen is actually in the midst of reshaping its bicycle lanes to be wider than the roads they are adjacent to, thus flipping the space devoted from cars to bikes.

• Denmark World Expo Pavilion | Shanghai, China

The Denmark pavilion was designed so that you can actually walk or bicycle through the entire exhibition. We enlisted an artist, Jeppe Hein, to create a 270 meter long bench which he entitled the “social bench” throughout the pavilion, which serves as a lighting element and a way to separate people from the bikes, but it is also a way to engage people in the space by twisting, turning, melting and arching. This pavilion was the only one out of 200 that did not use air conditioning, and instead cooled the air naturally by placing a large body of water from Copenhagen Harbour in the center upon which the air cooled before moving through a continuous loop in the space. The harbor water was brought over to entice people in China to jump in and to realize that they too could live in a modern harbor city with water still clean enough to swim in. Over 6 million visitors biked, walked and swam through the pavilion in six months, which is more than the entire population of Denmark.

• 8 House | Copenhagen, Denmark

8 House is a tower with nearly five hundred apartments, located adjacent to the Copenhagen metro system and a large protected area that forms a park. The 8 House is formed through the layering of penthouses, apartments, row houses and retail, which loop up into the sky. Our underlying objective is to create density without losing the intimacy of each and every resident. The inspiration was an Italian hillside town, in which people walk up and pass their neighbors’ homes and have relationships with those people who live next door to them. The building incorporates a continuous 600 meter ramp for walking and bicycling, which is open for use by anyone in Copenhagen.