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HEALTHY CITIES.
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**DASH-NYC Featured Program:
Arbor House**
Center for Active Design and
Blue Sea Development

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**DASH
NYC**

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**INSTITUTE FOR URBAN HEALTH
FELLOWS
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ABOUT THIS FEATURED PROGRAM

This featured program report is part of a series related to *Interventions for Healthy Eating and Active Urban Living: A Guide for Community Health*. The featured program reports provide information on community partnerships and interventions that support healthy eating and active living in NYC. Program leaders and implementers provide detail on the background, impact and sustainability of each effort, along with advice to others looking to develop similar interventions in NYC and beyond.

These featured program reports and the guide were developed in partnership with the Designing a Strong and Healthy New York City (DASH-NYC) Workgroup, which aims to improve health and promote health equity for all New Yorkers using a multisector approach to advancing chronic disease prevention in NYC.

DASH-NYC was launched in January 2015 by the NYC Department of Health and Mental Hygiene and the New York Academy of Medicine as part of the New York City Population Health Improvement Program (NYC PHIP). The NYC PHIP, with support from the New York State Department of Health, promotes health equity and the “Triple Aim” of improved health care, reduced health care costs, and better health across the City.

For more information on the NYC PHIP: [Link to website](#)

BUILDING FOR HEALTH

Arbor House is a 120,000 square foot, eco-friendly and health-oriented residential building located in the South Bronx. Residents in the 123 apartments in Arbor House earn less than 60 percent of the area median income, and one-quarter were previous tenants in (or on waiting lists for) New York City Housing Authority (NYCHA) apartments. Completed in 2013, Arbor House incorporates a variety of design strategies and was developed with the explicit goal of promoting the health of its residents by increasing opportunities for healthy living and maintaining air quality. The LEED-certified building features well-lit and inviting stairwells decorated with art and filled with music, stair usage prompts, and both indoor and outdoor fitness facilities, as well as healthy cooking classes and a hydroponic rooftop farm that offers residents farm shares and brings fresh produce to the community.

GETTING STARTED

The development of Arbor House was initiated as part of NYC Mayor Bloomberg's New Housing Marketplace Plan, which aimed to use financial incentives and land use regulations to motivate private developers to invest in affordable housing. Blue Sea Development Company, LLC (Blue Sea) an innovative affordable housing developer and pioneer in sustainable design, was selected to lead the development and construction of Arbor House using land within NYCHA's Forest Houses complex that they purchased below market value. The majority of funding for the project came from the NYC Housing Development Corporation and the NYC Department of Housing Preservation and Development. Bronx Borough President Ruben Diaz and City Council Member Helen Foster raised an additional \$2 million that was used, in part, to fund the construction of the rooftop greenhouse.

After being selected to lead the project, Blue Sea worked closely with the Active Design program, an interdisciplinary collaboration between 10 city agencies (led by the Department for Design and Construction, the Department of Health and Mental Hygiene, the Department of Transportation, and the Department of City Planning) that eventually transitioned into the Center for Active Design. The program provided technical assistance related to incorporating the City's Active Design Guidelines into the construction of Arbor House without increasing costs. The program also served

as an intermediary between developers and the city, advocating for building code changes that would allow Blue Sea and others to implement many recommended active design features into their project.

SUSTAINABILITY

As the owner of Arbor House, Blue Sea is responsible for maintenance of the buildings and the programs housed within it. Sustainability is achieved through the collection of rent payments from residents, many of which are subsidized by federal and state housing programs and vouchers, and through partnerships with external organizations. For example, Arbor House's hydroponic rooftop farm is operated by Sky Vegetables, an "urban agriculture company dedicated to building sustainable, commercial-scale hydroponic farms on urban rooftops across America,"¹ and expectations are that the farm will generate self-sustaining revenue by selling produce to building residents, community members, and local organizations.

IMPACT

Evaluation of Arbor House's impact on the physical activity habits and health outcomes of residents is being conducted by researchers in the Department of Preventative Medicine at the Icahn School of Medicine at Mount Sinai. Preliminary evaluation findings suggest that the active design features of Arbor House have significantly contributed to an increase in physical activity participation among residents, and may have helped to prevent weight gain among some residents.² Furthermore, Arbor House residents report that the active design elements incorporated into the building design have increased their participation in physical activity. Key elements included the accessibility and safety of exercise facilities and the ambiance and motivational culture of the building.³

¹ Sky Vegetables. About Us. Available at: <http://www.skyvegetables.com/about.html>. Last accessed April 1, 2016.

² Garland, E. J. (2015, November). Active Design for Healthier Affordable Housing: A Public Health Nudge. In *143rd APHA Annual Meeting and Exposition (October 31–November 4, 2015)*. APHA. Published online at: <https://apha.confex.com/apha/143am/webprogram/Paper324305.html>. Last Accessed: September 28, 2015.

³ Garland, E., Baban, K. A., Garland, V., Bey, G., & Sanchez, S. H. (2014). One Step at a Time Towards Better Health: Active Design in Affordable Housing. *Environmental Justice*, 7(6), 166–171.

BEFORE GETTING INVOLVED, YOU SHOULD KNOW...

Developers of residential and affordable housing must abide by funder requirements and building code regulations, which can hamper their ability to incorporate some active design strategies. For instance, building code or funder requirements may require that doors leading to stairwells remain closed at all times or that elevators be visible from the street, which can limit implementation of designs that encourage stair use. Encountering new and unexpected barriers is inevitable in large-scale construction projects, and building in the time and capacity to handle them is essential.

To overcome these regulatory obstacles, developers can request project-specific waivers allowing them to avoid adhering to a certain regulation, or in some cases, more comprehensive advocacy efforts can lead to long-term changes in regulations. For example, Arbor House obtained a waiver enabling them to make the stairs visible from the entrance, rather than the elevator. Additionally, the Center for Active Design supported advocacy efforts to change building code regulations to enable usage of special “hold-open” devices to keep stairwells accessible in buildings that fall below a certain height. Although Arbor House was too tall to benefit from the Center’s advocacy efforts, the change paved the way for future projects to maintain open stairwells.

ADVICE FOR OTHERS DOING THIS WORK

Know the rules.

Beginning projects with a detailed understanding of the building and energy codes that regulate construction, along with any design guidelines imposed by the funding agency, can help reduce or minimize the barriers they present. It is also important to discuss these codes and design requirements with senior staff at regulating agencies to be sure that both parties are aware of the nuances related to uncommon building features, like a rooftop greenhouse, that regulators are not used to seeing.

Know the costs.

Remind stakeholders, including developers, investors and funders, that the majority of active design strategies are low or no cost. Many will assume that active design is expensive, which can be an unnecessary barrier to their adoption of health as a priority during the design and construction of new projects.

Know your partners.

Be open to understanding the motivation of the partners that you are working with, and focus on their existing priorities. Projects that significantly increase costs are unrealistic, as budget is always a high priority. However, it is also important to consider how the health-oriented design strategies align with the developer's other priorities. For example, if the developer is interested in sustainability, consider how to link health to sustainable development.

ADDITIONAL RESOURCES:

Active Design Guidelines | [Link to website](#)

Active Design – Guide for Community Groups | [Link to website](#)

Active Design Supplement – Affordable Designs for Affordable Housing | [Link to website](#)

Active Design Supplement – Promoting Safety | [Link to website](#)

Active Design Supplement – Shaping the Sidewalk Experience | [Link to website](#)

The Partnership for a Healthier NYC – Active Design Toolkit for Schools | [Link to website](#)

Urban Land Institute: Building Healthy Places Toolkit | [Link to website](#)

For more information, contact info@centerforactivedesign.org.

This program feature was written by Elisa Fisher, Assistant Deputy Director, Population Health and Health Reform at The New York Academy of Medicine, who gratefully acknowledges the significant input from the highlighted programs, especially Joanna Frank, Executive Director, Center for Active Design and Les Bluestone, Co-Founder, Blue Sea Development Company, LLC. Any errors are the authors' own.

The opinions and advice represented herein do not necessarily reflect that of the DASH-NYC workgroup members, their respective organizations, The New York Academy of Medicine, its trustees, officers or staff.

About the Academy

The New York Academy of Medicine advances solutions that promote the health and well-being of people in cities worldwide.

Established in 1847, The New York Academy of Medicine continues to address the health challenges facing New York City and the world's rapidly growing urban populations. We accomplish this through our Institute for Urban Health, home of interdisciplinary research, evaluation, policy and program initiatives; our world class historical medical library and its public programming in history, the humanities and the arts; and our Fellows program, a network of more than 2,000 experts elected by their peers from across the professions affecting health. Our current priorities are healthy aging, disease prevention, and eliminating health disparities.

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