# INVESTING IN HEALTH FROM THE GROUND UP

## Building a Market for Healthy Neighborhoods

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If you had the chance to invest in new technology that was proven to reduce the burden of chronic disease and cut health care costs for thousands of people, would you do it? What if that same technology also reduced greenhouse gas emissions, improved mental health, and cut crime rates? The investment I'm talking about is deceptively simple—and we already know how to make it. It's not an app or a mobile device. It's a well-functioning neighborhood.

The market for improving health in the United States is vast and growing. Venture funding for digital health surpassed $4 billion in 2014, nearly equivalent to the prior three years of funding from 2011 to 2013 combined.[1] In 2014, the top six categories of venture funding for digital health were Analytics and Big Data ($393 million), Healthcare Consumer Engagement ($323 million), Digital Medical Devices ($312 million), Telemedicine ($285 million), Personalized Medicine ($268 million) and Population Health Management ($225 million).[2] In the context of this growing and dynamic market, there is clearly enormous opportunity to drive investment toward interventions that improve population health.

Neighborhoods conditions, including the quality and cost of housing and transportation, access to jobs, education and services, and the availability of healthy food and safe places to walk and play are primary drivers of how long and how well we live.[3] Together, they create an environment that shapes the choices we make every day, from how we get around and where we work to how much physical activity and sleep we get and how well we know our neighbors. Hostile environments can exacerbate poor mental and physical health through a cascade of stressors including exposure to violence, housing instability, and financial insecurity. These stressors, and the environmental conditions that underpin them, are more prevalent in low-income communities and communities of color, contributing to profound inequities in health outcomes. For example, a 2009 study from the Agency for Health Care Research and Quality found that hospital admissions rates for diabetes-related complications were 77 percent higher for people living in the poorest neighborhoods in the United States.[4] A 2014 study by the U.S. Centers for Disease Control and Prevention found that more than 50 percent of Hispanic men and women and non-Hispanic black women are predicted to develop diabetes during their lifetime, compared to 40 percent of the general population.[5] Diabetes and its complications accounted for $245 billion in direct and indirect medical costs in 2012.[6]

Despite overwhelming evidence linking neighborhood environments to health and health care costs, there is a dearth of investment in healthy communities. "On a Mission: Investing for US Health Impact in 2014," a survey conducted by the California Health Foundation, provides an overview of mission investing in health (defined as investing that aims to generate both social and financial returns). The survey identified 16 organizations that made health impact investments in 2014 totaling more than $120 million altogether. Of these investments, only 21 percent, or approximately $25 million, focused on the environmental and social

1 Malay Gandi and Teresa Wang, "Digital Health Funding: 2014 Year in Review," available at https://rockhealth.com/reports/digital-health-funding/.

2 Ibid.

3 Amy Edmonds et al., "How Do Neighborhood Conditions Shape Health? An Excerpt from Making the Case for Linking Community Development and Health," Center for Social Disparities in Health, Build Healthy Places Network, and Robert Wood Johnson Foundation, available at http://www.buildhealthyplaces.org/content/uploads/2015/09/How-Do-Neighborhood-Conditions-Shape-Health.pdf.

4 Lauren Wier et al., Statistical Brief #73: "Hospital Stays Among People Living in the Poorest Communities, 2006," Agency for Healthcare Research and Quality (May 2009), available at www.hcup-us.ahrq.gov/reports/statbriefs/sb73.pdf.

5 Edward Gregg et al., "Trends in Lifetime Risk and Years of Life Lost Due to Diabetes in the USA, 1985–2011: A Modelling Study," *The Lancet Diabetes & Endocrinology* (2014), available at http://www.sciencedirect.com/science/article/pii/S2213858714701615.

6 American Diabetes Association, "Economic Costs of Diabetes in the U.S. in 2012," *Diabetes Care* 36(4): 1033–1046 Apr 2013, available at http://care.diabetesjournals.org/content/36/4/1033.

determinants of health.[7] This is less than one percent of the venture capital invested in digital health companies in the same year. Although existing federal programs, including the Low Income Housing Tax Credit and New Markets Tax Credit, are critical resources, they are not enough.

Why is it so difficult to finance the development of healthy neighborhoods when the benefits to people, communities, and the economy are so profound? The answer, at least in part, lies in the fact that these benefits are not generally measured or accounted for in any systematic way. Healthy Neighborhoods Equity Fund (HNEF) is a pioneering, $30 million real estate investment fund in Massachusetts that grew out of the recognition that mixed-income, mixed-use, transit-oriented development (TOD) projects in historically disinvested neighborhoods are both challenging to complete and transformative for communities. HNEF is sponsored by two regional organizations, the Massachusetts Housing Investment Corporation, a 26-year-old community development financial institution (CDFI) with $1.2 billion in assets under management, and the Conservation Law Foundation, New England's oldest and largest environmental advocacy organization. HNEF provides "patient" equity for catalytic TOD projects in neighborhoods where the cost to build exceeds today's market value. The fund can invest in residential, office, retail, light industrial, or mixed-use projects, and typically supports five to 25 percent of the total project cost. HNEF has a longer time horizon and lower target return than typical private equity funds, which allow the fund to invest in projects and neighborhoods that would otherwise be unable to access this type of financing. A significant layer of "first loss" capital[8] absorbs some of the risk if projects do not perform as expected and offsets the lower rate of return for private investors. Equally important, projects seeking an investment from HNEF go through a rigorous review process using a scorecard that integrates more than 50 qualitative and quantitative measures that assess the project's likely community, environmental, and health impacts. HNEF also provides ongoing monitoring to document the effect of these projects over the ten-year life of the investment.

7 California Health Care Foundation, "On a Mission: Investing for US Health Impact, 2014" (June 2015), available at http://www.chcf.org/~/media/MEDIA%20LIBRARY%20Files/PDF/PDF%20M/PDF%20MissionInvesting2014.pdf.

8 In an investment fund, first loss capital is used to cover losses that may occur before they are passed on to other investors.



The structure of HNEF, which aligns financial returns with community, environmental, and health benefits, is made possible by a fundamental shift in the real estate market nationwide. In their recently released paper, "Foot Traffic Ahead 2016," Christopher Leinberger and Michael Rodriguez found that, "For perhaps the first time in 60 years, walkable urban places in all 30 of the largest metros are gaining market share over their drivable suburban competition—and showing substantially higher rental premiums."[9] As a result, communities with the core characteristics of place that support walkable urban development, including a mix of uses, higher densities, access to transit, and connected street networks, have strong potential for long-term growth in value. These same characteristics are also important for increasing economic opportunity, health, and wellbeing for residents. HNEF is taking advantage of this overlap to drive greater investment in struggling neighborhoods that are in the early stages of development and are also facing significant health and environmental challenges. Recognizing the potential risk of displacement as real estate values rise, HNEF is supporting the development of mixed-income communities that include both affordable and market-rate housing.

The current HNEF project pipeline is concentrated in Boston, with some projects in downtown areas and around commuter rail stops in surrounding cities and towns. The first HNEF investment of $894,500 in the Chelsea Flats project was finalized in December 2014, and an additional $16.8 million of HNEF investment in five other projects has since been approved. These six projects have leveraged an additional $121.5 million of private and public investment in low- and moderate-income neighborhoods. In total, they will create 528 new housing units, of which 26 percent are affordable to households earning 80 percent of Area Median Income (AMI) or less. Starting rents for market-rate apartments range from 78 to 129 percent of 2016 AMI, affordable to working families. These six projects will also create over 106,000 square feet of commercial space, including neighborhood retail and office space, and generate nearly 1,100 new construction jobs and over 140 new permanent jobs. Across all phases of development, including those that HNEF has invested in, these projects will create 975,000 square feet of

9 Christopher Leinberger and Michael Rodriquez, "Foot Traffic Ahead: Ranking Walkable Urbanism in America's Largest Metros," George Washington University School of Business (2016), available at https://www.smartgrowthamerica.org/foot-traffic-ahead-2016.

new mixed-use development near transit that is home to nearly 1,800 new residents and employees. These projects will also support three new or improved parks and trails, a new grocery store, and several healthy food outlets. Equally important, these projects will contribute to safer and more walkable neighborhoods with new jobs and amenities that benefit current as well as future residents.

The Melnea Hotel and Residences in Boston's Dudley Square neighborhood is a prime example of the type of transformative development HNEF was set up to support. Located on a long-vacant piece of publicly-owned land at the intersection of two major streets that form a gateway to the commercial center, the site will soon be home to a new mixed-income, mixed-use development with 50 residential units, a Marriott flagship hotel, and ground-floor retail space. The project is located just 0.3 miles from Dudley Station, a major transit hub that includes regional bus service, and 0.7 miles from the Ruggles subway station. The project is one of several recent public and private developments in and around Dudley Square, a historically African-American neighborhood that is beginning to rebound after years of community-driven reinvestment activity.

Starting rents at Melnea Residences will be affordable to households earning 110 to 129 percent of AMI, with seven units set aside for households earning less than 70 percent of AMI. These units serve an important segment of Boston's housing market. The city's rental housing population grew by 23 percent from 2006 to 2013 while the number of rental units grew by only 15 percent, contributing to low vacancy rates and rising rents across the city.[10] Despite the prominence of the site and the overall strength of the Boston housing market, the Melnea Residences project would not be possible without HNEF financing owing to the perceived risk of achieving market rents and the longer time horizon required to pay back investors.

Melnea Hotel and Residences will create approximately 50 new jobs in hotel operations, residential management, and retail. Starting wages at the hotel will be $18 per hour, and the hotel operator is contributing $400,000 to the city of Boston for a job-training fund. Project sponsors have committed to local hiring targets, including 51 percent of construction worker hours performed by minority workers, with a preference for Roxbury residents (the larger neighborhood around Dudley Square), and 70 percent of hotel jobs to be filled by community residents and/or lower-income people. They have also committed to the participation of minority-business enterprises (MBE), including 40 percent of the construction contract value being performed by MBEs. In addition to construction and permanent jobs created on the site, 33 percent of the region's jobs are available within a 45-minute transit commute, opening up additional opportunities for residents of the project.

Beyond the creation of new housing and jobs, Melnea Hotel and Residences will contribute to measurable improvements in safety and walkability in the surrounding area and take advantage of a number of health-promoting features nearby. The project is expected to produce a 77.3 percent increase in the State of Place index, a block-by-block audit tool that measures the qualities empirically shown to be associated with walking.[11] This will not only promote physical activity but also improve community safety by creating more "eyes on the street." In addition, the project will provide secure indoor bike parking and enhance the existing South Bay Harbor bicycle trail that runs along the edge of the site. Finally, the project is flanked by a large complex of recreational fields and a newly constructed full-service grocery store, Tropical Foods, both of which support the health of residents in the area.

This type of development is important to Dudley Square for several reasons. The poverty rate for the half-mile area around the project is 34.5 percent, more than three times the state poverty rate, and unemployment is 13 percent, or 2.8 times the state rate.[12] In 2012, life expectancy in Dudley Square was a shocking 58.9 years, compared with 91.9 years for the Back Bay neighborhood just two miles north, and 80.5 years for the

10 Zeninjor Enwemeka, "In Boston, Renters (And Rents) Are on the Rise but Available Units Are Not, Report Finds," WBUR News (May 28, 2015), available at http://www.wbur.org/news/2015/05/28/boston-rent-report.

11 The State of Place Index is comprised of ten urban design features–the State of Place Profile–empirically known to impact people's decisions to walk. The State of Place algorithm aggregates 290 data points into an index from 0–100 that indicates how walkable–convenient, safe, comfortable, and pleasurable–a block, group of blocks, or neighborhood is.

12 Metropolitan Area Planning Council Analysis for HNEF (internal document).

state as a whole.[13] Between 2010 and 2013, nearly one in three people (32.1 percent) in ZIP Code 02119 reported their general health status was fair or poor, twice the rate for Boston as a whole (15.7 percent).[14] Chronic disease is disproportionately high; the three-year, age-adjusted rate for diabetes in-patient hospitalizations was 1,466 per 100,000 residents, nearly 11 times the rate for Massachusetts as a whole, and the three-year age-adjusted rate for mental health emergency department visits was 40,235 per 100,000 residents, 18.3 times the state rate.[15]

Improvement on any of these measures would have a significant impact on residents, the neighborhood, and the health care system. Although no single project can bring about these kinds of large-scale improvements, a coordinated approach to public and private investment, guided by authentic community engagement and thoughtful planning, offers the best prospects for sustained change. The availability of patient equity through investment funds like HNEF can play a pivotal role in reversing decades of disinvestment in struggling communities across the country.

For these kinds of investments to take root in more places, we need the ability to measure and describe the social good the investment is creating. That is why we created a scorecard for HNEF (the HealthScore) that integrates data from a variety of sources and allows us to measure and monitor the impact of HNEF investments. To assess the need and opportunity for healthy neighborhood development and the likely impact of a proposed project, the HealthScore integrates primary data on walkability and quality of the built environment with secondary data on neighborhood conditions, demographics, and health outcomes. In addition, the HealthScore includes a qualitative assessment of the local planning and development context, community engagement process, and partners. Finally, the HealthScore contains a detailed assessment of building uses, design, site plans, and programming. This scoring process relies on partnerships and agreements with our state public health department, regional planning agency, and several private contractors as well as conversations with project sponsors and other stakeholders in the neighborhood. The HealthScore also provides baseline data on a number of measures that can be monitored to determine whether conditions are changing over time. Although many of these conditions are not likely to change solely as a result of HNEF investment, we can use the baseline and monitoring data to gauge progress on key measures. As this type of neighborhood-level data becomes more widely available and accessible, the opportunity to use it for investment screening and monitoring will only grow.

What would it look like to make strategic, data-driven investments in healthy communities at scale? What could we achieve? The equity gap for mixed-use, mixed-income TOD projects is a challenge in markets across the country, and hundreds of community-based organizations and developers are seeking to build projects that address health and environmental challenges. Although the target rate of return and relative proportion of public, philanthropic, and private capital may vary, the concept of a blended capital stack can be replicated nearly anywhere. Individual and institutional investors, including banks, hospitals, and health systems, can bring new resources to the table, bolstered by first-loss capital from the public and philanthropic sectors. On the fund management side, CDFIs are widespread across the United States and can serve as effective intermediaries, combining local market knowledge with the ability to aggregate and deploy capital. Universities and nonprofits with expertise in data collection can support impact measurement. Similarly, county and state public health departments can bring deep expertise in gathering, tracking, and reporting health outcomes. Fusing these collective resources and capacities through a structure similar to HNEF has enormous potential to drive change at a scale that would not otherwise be possible.

13 Emily Zimmerman et al., "Social Capital and Health Outcomes in Boston: Technical Report," Virginia Commonwealth University Center of Human Needs (September 2012), available at http://www.society-health.vcu.edu/media/society-health/pdf/PMReport_Boston.pdf; Kristen Lewis and Sarah Burd-Sharps, "American Human Development Report: The Measure of America 2013–2014," Social Science Research Council, available at http://www.measureofamerica.org/wp-content/uploads/2013/06/MOA-III.pdf.

14 Boston Public Health Commission, Boston Behavioral Risk Factor Surveillance Study, 2010 and 2012 combined. For more information, see http://www.bphc.org/healthdata/Pages/Boston-Behavioral-Risk-Factor-Surveillance-System.aspx.

15 Center for Health Information Analysis (CHIA), Uniform Hospital Discharge Database System (UHDDS), Inpatient Hospitalization and Emergency Department Data, Calendar Years 2010–2012. For more information, see https://www.apcdcouncil.org/sites/apcdcouncil.org/files/media/state/ma-apcd-overview-2014.pdf.

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