IN SEARCH OF HEALTHY COMMUNITIES: A CONCEPTUAL FRAMEWORK FOR ENGAGING DEVELOPERS

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ABSTRACT: As the U.S. continues to see rapid growth in urban areas, multifamily developers are providing rental units to house this population surge. Given that critical health outcomes including obesity, cardiovascular disease, diabetes, and cancers have been linked to the built environment, and provided the influence of home on community health and healthy behaviors, multifamily real estate must be an active participant in the health conversation.

While connections between housing and health have long been recognized, empirical evidence is needed to inform decision-making within the real estate industry to encourage their active engagement in developing healthy communities. Potential benefits regarding the real estate industry's influence on community health are beginning to draw attention, including work by the Urban Land Institute (ULI), the Green Health Partnership, and the recent 2016 Health and Well-Being Module from Global Real Estate Sustainability Benchmark (GRESB). Regardless, a large gap in peer-reviewed research still remains.

This paper outlines the early stages of a research initiative exploring considerations for building a business case for private developer investment in projects engaging community health. The proposed framework suggests methods for integrating resources and expertise to create a holistic, mixed-methods business case to understand motivations, processes, and implementation mechanisms needed to develop practical strategies and create identifiable value based on health and well-being within multifamily developments. Items to be addressed include: (1) how and why developers might address health; (2) criteria for decision-making processes; (3) favored health strategies within projects; (4) economic factors, including discussions with financial lenders; and (5) considerations between different project types and locations based on local infrastructure and relevant housing and health policies. The resulting business cases would be able to inform municipal policies to encourage multifamily development projects that support creating a culture of health in communities, as well as incentivize or make the case to developers to incorporate health in their projects.

KEYWORDS: multifamily development; health; built environment; culture of health; real estate

INTRODUCTION

Multifamily developers in the United States have been slow to engage community health initiatives, and overall have not been incentivized to do so. As the U.S. continues to see rapid growth in urban areas, multifamily developers are eagerly providing rental units to house this population surge across the country. Freddie Mac estimates the number of renter households will increase by 4.4 million by 2025, with 306,000 multifamily units completed in 2015 (Freddie Mac, 2016). The cost of multifamily rental units is now 38% higher than the pre-2008 recession peak, representing over \$5.1 billion in rent in 2015 nationwide (US Department of Commerce, 2016). Multifamily developers' response to this growth affords a largely unconsidered opportunity for the real estate industry to positively impact the health and well-being of the community at large. One way developers can engage health is through the built environment, which is associated with both physical activity behaviors and health outcomes such as obesity, cardiovascular disease, diabetes, and cancers (Sallis, Floyd, Rodríguez & Saelens, 2012). A study of 6-11 year olds found that youth spend 47.2% of their day at home, accounting for 43.6% of their moderate and vigorous physical activity (MVPA) (Tandon, et al., 2014), while adults were found to spend 51.3% of their time within 125 meters of home, accounting for 20.7% of their MVPA (Hurvitz, Moudon, Kang, Fesinmeyer & Saelens, 2014). Provided the influence of home environments on community health and healthy behaviors, multifamily real estate must become part of the mainstream interdisciplinary research, policy, and practice conversation. This paper reviews the conceptual foundation and research aims for a grant received from the Robert Wood Johnson Foundation's Engaging Businesses for Health project, an RWJF initiative managed by Academy Health. The project is in its early stages as it commenced in February 2017. A collaboration between North Carolina State University's College of Design and Department of Parks, Recreation & Tourism Management in the College of Natural Resources, the funding seeks to ultimately establish a business case for the inclusion of health strategies in real estate to inform both policy and private investment.

1.0 BACKGROUND

While connections between housing and health have long been recognized by researchers and policymakers (e.g., 'The

relation between housing and health,' Public Health Reports, 1934), empirical evidence is needed to inform decisionmaking within the real estate industry to encourage their active engagement in developing healthy communities. The real estate industry is vastly complex and includes an array of decision-gates throughout the development process; so, in an effort to narrow the scope, this research particularly focuses on formative development conceptions for new multifamily projects. Literature addressing mechanisms that incentivize decisions to locate multifamily developments proximate to existing transportation, fresh food outlets, parks and greenways, and medical services, for example, remains nascent. Currently, incentives (i.e., financial, accreditation, and others) used in real estate decision-making are focused primarily on green building initiatives and policies, leaving the health impacts of real estate endeavors unmeasured and unconsidered – an economic externality (Trowbridge, Warden, Pyke, 2015) Translating the business value of these health-promoting features into actionable, project-level decisions for real estate industry stakeholders is therefore rarely implemented (Erickson and Andrews, 2011; Trowbridge et al., 2015). At the same time, potential benefits regarding the real estate industry's influence on community health are beginning to draw attention, including work by the Urban Land Institute (ULI), the Green Health Partnership, and the recent 2016 Health and Well-Being Module through the Global Real Estate Sustainability Benchmark (GRESB) (Trowbridge, Worden and Pyke 2015; Bauer, Eichholtz, Kok and Quigley 2011).

ULI recently outlined developers' motivations, intended wellness and health outcomes, the development process, and metrics of market performance for thirteen developments with wellness intentions - i.e., clean indoor air, physical/pedestrian activity through project design, support for bicycling, structured fitness activity, and social interaction (Kramer, Lassar, Federman and Hammerschmidt 2014). Performance metrics for one such development in Fayetteville, AR, indicated the inclusion of clean indoor air strategies and a community garden near the pool and social courtyard contributed to the fully leased status. Current rents for this development run 113 to 140 percent of pro forma estimates, significantly higher than comparable apartments in the area. Turnover has been 15 percent lower than the market average (Kramer, et al. 2014). Highlights like these are promising; however, these initial, engaged projects remain the exception, not the rule. A large gap in peer-reviewed research - especially from an interdisciplinary design, health, and real estate perspective - still remains. The prospect of private multifamily developers adopting a novel value proposition is not unprecedented. The green building industry, for example, provides a model that can help guide efforts to build a culture of health across the built environment system, including: practitioners, policy makers and financiers. The past two decades has witnessed the introduction and implementation of tools and practices on a global scale (Trowbridge, Worden & Pyke 2016).

The Green Health Partnership, with funding from Robert Wood Johnson Foundation, consists of interdisciplinary researchers from the University of Virginia, U.S. Green Building Council (USGBC), and Global Real Estate Sustainability Benchmark (GRESB). Their aim is to create new market interventions, tools, and metrics to influence investment and design decisions in the community development sector where data related to health costs and benefits are largely unconsidered. Their publications address how, within the real estate industry, health impacts of transportation, community development, and construction continue to operate as economic externalities: unmeasured, unregulated, and unconsidered. For example, researchers looking to advance the design, construction, and operation of built environments - to both promote human health and protect the environment - were unable to garner needed attention to permanently shift markets due to lack of substance; very little information is available to describe distributions of practice and performance related to sustainable design in real estate, let alone health (Pyke 2012; Trowbridge, Pickell, Pyke and Jutte 2014).

Building squarely upon these notable efforts, our objective is to go further and develop a business case for private developer investment in projects engaging community health. Working specifically with developers interested in these initiatives, and attempting to implement them, we have direct access to information and data needed to establish a health road map for the multifamily developer industry. Our interdisciplinary project team will integrate resources and expertise to create a holistic, mixed-methods business case to understand motivations, processes, and implementation mechanisms needed to develop practical strategies and create identifiable value based on promoting a culture of health and well-being within multifamily developments. The resulting business case will also inform municipal policies to encourage multifamily development projects that support creating a culture of health in communities.

2.0 RESEARCH QUESTIONS

This project is designed to explore strategies and financial considerations used in decision-making by private multifamily housing developers that are early adopters in supporting community health through the built environment. Specifically, the following aims are proposed:

Aim 1: Determine how and why private multifamily developers consider and include community health strategies and health-related amenities in new projects.

Rationale: Privately-funded multifamily developers house 57 million residents in the US, making critical upfront decisions on the location of properties and health-related amenities available.

Research Questions:

1.1: How do private developers define health strategies, amenities, and potential benefit?

1.2: What strategies and amenities are being considered and included, and why, in the design and construction of multifamily development projects to support community health?

1.3: How do equity partners view these strategies as they consider investing, and how do developers communicate the business value of the strategies to these financial institutions?

Aim 2: Determine the actual and perceived costs and returns for private developers to include community health strategies and amenities, in both total dollars spent and added construction premiums per project.

Rationale: Exploring developers' total expenditures and returns on investments through different contextual lenses will inform the business case as to how for-profit companies justify risks involved in the dollars spent in different communities on community health interventions.

Research Questions:

2.1: What are per item and total costs of including the identified health related strategies and amenities? 2.2: How do private developers understand and categorize, both conceptually and analytically, their returns on amenity investments, and how do they define the success of these investments?

3.0 METHODOLOGY

To understand the complexity of decision-making processes in multifamily development, particularly focusing on private businesses that have chosen to incorporate health initiatives in their projects, it is important to study specific cases in-depth focusing on the questions of How and Why. Yin proposes that a case study is "an empirical inquiry that investigates a contemporary phenomenon within its real-life context" focusing on questions framed in How and Why (Yin 2009). Case studies have also been used extensively in "developing and testing strategies to collect...data...to design and implement interventions" as seen in RWJF's Collection of case studies in the National Health Plan Collaborative (The National Health Plan Collaborative Toolkit 2008). With the goal of exploring how private businesses can best target their investments to increase community health, the case study approach will use primary and secondary data to inform the business case for leaders in multifamily real estate to invest in health across geographical markets.

3.1. Case study selection

Two multifamily development organizations were strategically approached to partner on this research based on their interest and engagement in establishing healthy communities in the Southeast region of the U.S. They represent two of the fastest growing population centers in the country: Crescent Communities (Charlotte, NC) and LIFT Orlando (FL). Five cases within these developers were selected based on location in the Southeast, and a focus on healthy community themes such as food and social equity. Four cases will come from Crescent Communities, a traditional for-profit real estate developer. Two selected cases are in Charlotte, NC, one in Nashville, TN, and one in Washington, D.C. Three cases are traditional for-profit, market rate multifamily communities for easily transferrable findings; one influential case is a social equity project addressing homelessness, providing unique insight to a specific social challenge through the investment of private funds.

LIFT Orlando, a market rate multifamily community in Florida and a Purpose Built Community, focuses on holistic community revitalization engaging a mixed-income housing strategy and community wellness services. This is a unique way of building community health, and could support a rich business case as a fifth example.

3.2. Data collection measures

To gather the primary data addressing the research questions of How and Why, a day-long, in-person session of indepth interviews and data gathering will be held with Crescent Communities using comprehensive questions guided by USGBC's LEED Pilot Credit program, which is aligned with RWJF's Culture of Health, and GRESB's Real Estate Health Assessment. Items to be addressed will speak to Aims 1 and 2, and include: (1) how and why the company addresses health; (2) criteria for decision-making processes; (3) favored health strategies within projects; (4) economic factors, including discussions with financial lenders; and (5) considerations between different project types and locations based on local infrastructure and relevant housing and health policies. The above steps will be repeated with LIFT Orlando via virtual meetings. After analysis of initial meetings, half-day follow-up meetings will be scheduled. Initial findings will be shared for feedback and remaining questions will be answered or clarified. Secondary data will be gathered through a partnership with Trulia, the online residential real estate site for homebuyers, sellers, renters and real estate professionals. Trulia is providing unit pricing, demand, vacancy rates, and marketing for each multifamily development in the 58 cities with a population over 100,000. The properties will be stratified by whether or not the listing description includes key health features on-site (i.e., walking or biking trails, sport courts, access to public transportation, etc.). Unit pricing and vacancy rate data is available annually and retrospective to 2006.

3.3. Data analysis

Transcribed interviews will first be analyzed through a within-case analysis (Creswell 2007), with coding for themes by two team members, addressing research questions with respect to each particular case. Following the preliminary creation of codes, team members will modify coding and themes as necessary to ensure findings fit the research questions being addressed. A second round of cross-case analysis (Creswell 2007) will be completed analyzing themes across cases. Both rounds of coding will be reviewed with the full research and advisory teams. Descriptions, frequencies, and contexts of responses will be captured to enumerate common and less frequent health strategies and amenities, decision-making processes, economic considerations, market determination, and location of new developments. Results will be shared for discussion with participant developers.

Quantitative data gathered in Aim 2 will stem from financial pro formas received for the selected developments. These will include sources of funds, funding associated with tax credits, development timeline, and actual costs for community health components within specific developments. Analyses will include descriptive and frequency statistics as well as associations between health-relevant language, tax credits, timeline, costs and other investor benchmarks (i.e., capitalization rates).

Descriptive and frequency statistics will be developed with data from Trulia including health-related strategies and amenities, unit pricing, vacancy rates, and rental tenure. With data from 58 cities, inferential statistics will address health-related strategies and amenities and the outcomes of pricing and vacancy/tenure. City and census tract data will be included to control for spatial differences in demographics and socio-economic status.

3.4. Quality standards and verification

A Technical Advisory Group has been established to review and provide expert insight on the project, including representatives from: University of Virginia's Green Health Partnership; GRESB; Delos, creator of the WELL Building Standard; Trulia; and professional designers in practice. These advisors have agreed to review the research plan, process, and findings. Additionally, quality standards of Credibility, Transferability, Dependability, and Confirmability will be addressed through measures including members' checks with participants; triangulation of data between interviews, pro formas, and online listings; and the use of an audit trail documenting the processes by which data is collected (Guba 1981).

4.0. BARRIERS AND LIMITATIONS

This proposal has been designed to eliminate as many barriers and limitations as possible. However, the success of the research is dependent on the engagement and cooperation of the developer partners. By engaging these organizations early in the research design process, the proposal includes methods, data, and analyses that have been agreed to.

A barrier to case studies is the sheer wealth of data gathered to craft a holistic perspective of the issue being addressed. In exploring the methods for engaging private multifamily developers in community health, a variety of methods need to be used, including interviews, pro forma analysis, and data mining from national databases. Generalizability could be limited with only two developers, though the participants were approached based on being mainstream (Crescent) and unique (LIFT).

While the goal is to better understand the financial and strategic paths necessary to include health as an impactful and necessary consideration within the real estate process for multifamily developers, a long-term barrier will be establishing fundamental organizational transitions within the real estate industry toward a culture of health. This research represents the early stages of a burgeoning field of incorporating health and wellness into a measured component of the real estate process; efforts to adopt recommendations offered by this research may take time.

5.0. DISCUSSION

Research in the urban planning and public health fields have recognized that the design and operation of communities in which people live, work, play and learn can significantly influence health behaviors and outcomes. There has been considerable evidence supporting that built environments shape opportunities to integrate physical activity and other health behaviors into daily lives. However, it remains unclear if private sector real estate recognizes these critical relationships in their decision-making and implementation processes. Provided that real estate development, in its most basic form, is the continual reconfiguration of the built environment to meet society's needs, and that the current state of chronic disease within the U.S. society has reached epidemic proportions, this project highlights how the intentional

implementation of healthy built environments will be increasingly reliant on the practices and choices of real estate developers. Further, the projected build-out of multifamily developments to accommodate population influxes within the southeast provides a well-suited housing type to deeply explore top-level decision-making with respect to the prioritization of healthy community design in development planning.

Termed as *market transformation*, this strategic process of market intervention has successfully removed barriers to and create incentives for built environment decision makers' prioritizing energy efficiency on a broad scale (Trowbridge, Worden, Pyke 2016). The above research aims to explore how health promotion objectives can adopt a similar trajectory within the real estate industry. Our mixed methods study design will enable our team to not only uncover motivations and in-depth decision processes observed within the real estate stakeholder industry, but also apply quantitative techniques to develop the necessary financial evidence base to drive a market shift towards a culture of health. Identifying and defining opportunities for public health engagement within this process will be essential to drive progress toward the goal of creating healthier communities at a national scale.

ACKNOWLEDGEMENTS

This document was originally adopted from a proposal for Robert Wood Johnson's call for "Engaging Businesses for Health." Support for this research (grant #74317) was provided by the Robert Wood Johnson Foundation. The views expressed here do not necessarily reflect the views of the Foundation.

REFERENCES

Bauer, R., Eichholtz, P., Kok, N., and Quigley, J.M. "How green is your property portfolio? The global real estate sustainability benchmark," Rotman International Journal of Pension Management 4 (2011): 34-43.

Creswell, J. W. Qualitative inquiry & research design: Choosing among five approaches (2nd ed.) Thousand Oaks, CA: Sage Publications, 2007.

Erickson, D. and Andrews, N. "Partnerships among community development, public health, and health care could improve the well-being of low-income people." *Health Affairs* 30 (2011): 2056-2063.

FreddieMac. "Multifamily Outlook 2016." 2016. Retrieved from http://www.freddiemac.com/multifamily/pdf/freddieMac_mf_outlook_2016.pdf.

Guba, E. "Criteria for assessing the trustworthiness of naturalistic inquiries." ECTJ: Educational Communication and Technology Journal 29 (1981): 75-91.

Hurvitz, P. M., Moudon, A. V., Kang, B., Fesinmeyer, M. D., & Saelens, B. E. "How far from home? The locations of physical activity in an urban U.S. setting." *Prev Med* 69 (2014): 181-186. doi:http://dx.doi.org/10.1016/j.ypmed.2014.08.034

Kramer, N., Lassar, T., Federman, M., and Hammerschmidt, S. Building for wellness: The business case. Washington, D.C.: Urban Land Institute, 2014.

Pyke, C. "Using information technology to transform the green building market. The Bridge: Linking Engineering and Society." *Frontiers of Engineering*, 42 (2012): 33-40.

Sallis, J. F., Floyd, M. F., Rodríguez, D. A., & Saelens, B. E. "Role of Built Environments in Physical Activity, Obesity, and Cardiovascular Disease." *Circulation* 125 (2012): 729-737. doi:10.1161/circulationaha.110.969022

Tandon, P., Grow, H. M., Couch, S., Glanz, K., Sallis, J. F., Frank, L. D., & Saelens, B. E. "Physical and social home environment in relation to children's overall and home-based physical activity and sedentary time." *Prev Med* 66 (2014): 39-44. doi:http://dx.doi.org/10.1016/j.ypmed.2014.05.019

The National Health Plan Collaborative Toolkit. (2008). Retrieved August 03, 2016, from http://www.rwjf.org/en/library/research/2008/09/the-national-health-plancollaborative-toolkit.html

Trowbridge, M.J., Pickell, S.G., Pyke, C.R., and Jutte, D.P. "Building healthy communities: Establishing health and wellness metrics for use within the real estate industry." *Health Affairs* 33 (2014): 1923-1929.

Trowbridge, M.J., Worden, K., and Pyke, C. "Applying green building principles of market transformation to promote healthy places." Discussion Paper, National Academy of Medicine, Washington, DC, 2015.

Trowbridge, M.J., Worden, K., and Pyke, C. "Using green building as a model for making health promotion standard in the built environment." *Health Affairs* 35 (2016): 2062-2067.

US Department of Commerce. First Quarter 2016 – Absorptions. 2016. Retrieved from http://www.census.gov/housing/soma/files/qtr116/q116Report.pdf.

Yin, R. K. Case study research: Design and methods. Los Angeles, CA: Sage Publications, 2009.