

Understanding demand for agriculturally integrated neighborhoods: Characteristics, health behaviors, and design preferences among prospective homebuyers

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Abstract


Agrihoods are residential communities intentionally designed around agriculture and green space to foster connections with food, nature, and neighbors. Despite their growing popularity, little is known about who is drawn to these developments

or the amenities they value. This study examined the characteristics, health behaviors, and housing priorities of prospective agrihood homebuyers. From March to July 2024, adults interested in purchasing a home in a Fort Bend County, Texas, agrihood ($N = 128$) completed an online survey distributed through the developer's marketing chan-

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nels. Measures included sociodemographics, health behaviors (time spent in nature, amount of sleep, physical activity, fruit and vegetable consumption), housing priorities, and willingness to pay more or extend commutes for specific amenities. Respondents were predominantly female, racially and ethnically diverse, middle-income, and highly educated. Although many respondents reported health behaviors below national recommendations, they expressed interest in health-promoting amenities. Affordability, school quality, and proximity to important places and people emerged as key housing priorities, while most respondents indicated they would be willing to pay more or extend their commutes to gain access to opportunities for physical activity, nature, fresh produce, social spaces, and agricultural features. These findings suggest that agrihoods may not only attract individuals already engaged in healthy lifestyles but also those who view these environments as potential catalysts for positive behavior change. As such, agrihoods may represent a promising setting for embedding preventive health promotion into residential development. Longitudinal research is needed to determine whether relocation to an agrihood translates into measurable improvements in health outcomes.

Keywords

agrihood, residential design, urban agriculture, health behaviors, community health, food systems, community agriculture, built environment, sustainable development, healthy living

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Introduction and Literature Review

Chronic diseases such as heart disease, diabetes, obesity, and certain cancers are leading causes of death and disability in the U.S., accounting for an estimated 90% of health care expenditures and contributing substantially to reduced quality of life (Centers for Disease Control and Prevention [CDC], 2025; Hacker, 2024; Kochanek et al., 2022). Modifiable health behaviors (e.g., diet, physical activity, social engagement) play a crucial role in both the prevention and progression of these conditions and are largely shaped by the environments in which people live (CDC, 2024; Office of Disease Prevention and Health Promotion, n.d.; Rahelić et al., 2024; Zhang et al., 2023). A recently published meta-analysis revealed that closer residential proximity to grocery retailers is associated with higher dietary quality, greater residential walkability and access to space for exercise is associated with higher levels of physical activity, and greater diversity in residential land use is associated with lower body weight (Dixon et al., 2021).

To support these health and quality of life benefits, innovative community designs have emerged that integrate residential living with local food systems and green space. One such model is the “agrihood,” an agriculturally integrated residential development designed to foster stronger connections between residents, their food sources, and natural environments suitable for safe outdoor activities (Norris, 2018). The developments often feature a working farm as a central amenity, complemented by trail networks, communal gathering areas, and other infrastructure to promote sustainability, active living, and social cohesion. By shortening the food supply chain and encouraging local production, agrihoods may contribute as well to reduced environmental impacts associated with long-distance food transportation. Agrihoods can also

Conflict of Interest Disclosures

Rebecca A. Seguin-Fowler is the owner and co-founder of www.strongpeopleprogram.org. The other authors declare that they have no competing interests.

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Ethical Approval

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help support local economies through job creation for farming, food production, and community-based enterprises, as well as increase property values and local commerce (Breger, 2020; Donnally, 2015; Murphy, 2014; Norris, 2018).

Despite growing interest in agrihoods across the U.S. and globally—an estimated 200 agrihoods now span more than 30 states (National Association of Homebuilders, 2024; Norris, 2018)—limited research has investigated who chooses to live in these communities, how such environments influence health behaviors, and the extent to which prospective homebuyers value specific agrihood features (Lewis et al., 2025; Norris, 2018). Although the literature supports the benefits of proximity to fresh food, walkable infrastructure, and green space, the associations have not been thoroughly examined in agrihood-specific contexts (Lewis et al., 2025). Furthermore, understanding the characteristics of individuals drawn to these communities is essential, as self-selection into health-promoting environments may affect observed outcomes and the broader scalability of agrihoods as a public health strategy (James et al., 2015).

Prospective homebuyer preferences are equally important for guiding developers, planners, and policymakers. Insights into how much value potential residents place on amenities such as farms, trails, or communal spaces, and whether willingness to pay more or to extend commutes for these amenities varies by sociodemographic group, can help align design and marketing strategies with community-identified needs. Such information is also critical for promoting equitable access to mixed-use land that has the potential to protect local food systems and reduce chronic disease risks.

To address these gaps, this study examined the sociodemographic characteristics, health behaviors, and purchasing preferences of a sample of individuals interested in buying homes in a planned agrihood development in the southern U.S. Specifically, we explored (1) whether these prospective residents represented diverse populations,

(2) whether they were currently engaging in behaviors associated with health and wellbeing, and (3) the extent to which they valued certain health-promoting neighborhood features.

Applied Research Methods

Details regarding the study design, participant recruitment, survey measures, and analytic approach are provided below.

Design

The present cross-sectional study served as formative research to inform a larger project examining longitudinal changes in health behaviors and outcomes among agrihood residents compared to those in a nearby development matched on home prices and square footage, zoning, and mixed-use amenities (Maddock et al., 2025). An online survey was administered from March to July 2024. The survey was designed to take approximately 12–15 minutes to complete and was available in English, consistent with the developer's English-language marketing materials and recruitment channels through which the survey was distributed. Study procedures were approved by the Baylor University Institutional Review Board prior to beginning recruitment efforts.

Respondents

The study was focused on Indigo Community,¹ a planned agrihood located in Richmond, Texas, approximately 28 miles southwest of downtown Houston in Fort Bend County. Respondents were recruited online based on their expressed interest in purchasing a home in Indigo, identified through the developer's website,² email listservs, and direct communication (e.g., one-on-one emails, phone conversations, scanned QR codes on flyers available onsite at welcome centers) targeting prospective homebuyers. Eligible respondents were 18 years or older, and consent was given at the start of the survey. Of the 307 adults who initiated the survey, 171 consented, and 128 completed all items and were included in the final sample.

¹ <https://www.indigocommunity.com>

² <https://www.meristemcommunities.com>

Measures

Survey items were developed by the research team with 40 questions total, including a mix of multiple choice, open-ended response, and ranking formats. Most measures were derived or adapted from existing validated sources.

Sociodemographic Characteristics

Sociodemographic items were derived from the Centers for Disease Control and Prevention (CDC) 2022 Behavioral Risk Factor Surveillance System (BRFSS) survey (CDC, 2022). Respondents were asked to provide their current relationship status, highest grade or year of school completed, whether they currently owned or rented their home, how many bedrooms were in their current home, their current state of residence, the type of region in which they currently resided (urban, suburban, or rural), current employment status, how many children less than 18 years of age currently living in their household, annual household income from all sources, self-reported race and ethnicity, age in years, sex at birth, and sexual orientation.

Health Behaviors

Health behavior items were derived from various sources. First, nature exposure was measured using a previously validated two-item measure assessing frequency and duration (Maddock et al., 2022). The first question measures frequency of visits to nature areas and was adapted from the Monitor of Engagement with the Natural Environment (White et al., 2019). The second question measures duration in nature (in this case, the previous year) and comes from the Nature of Americans Study (Kellert et al., 2017; White et al., 2019). Physical activity was measured using a single item asking respondents to report typical weekly moderate and vigorous physical activities lasting at least ten minutes (i.e., where their heartbeat increases and they breathe faster) during both leisure time and transport (Danquah et al., 2018, p. 2). This item is included in the Nordic Physical Activity Questionnaire short version (NPAQ-short), which has established test-retest reliability and acceptable

kappa correlations (Danquah et al., 2018). Total hours per week in moderate and vigorous physical activity (MVPA) were calculated. Fruit and vegetable consumption was measured using six items from the Behavioral Risk Factor Surveillance System (BRFSS)³ (CDC, 2022), which asked respondents to report usual dietary intake (e.g., fruit, fruit juice, leafy greens, fried or other kinds of potatoes, other vegetables) in the past 30 days. The median frequency of fruit and vegetable daily intake was first calculated by converting weekly and monthly intake into daily intake by dividing the frequency of weekly or monthly reported intake by 7 or 30, respectively. Subsequently, the frequencies of all fruit and vegetable variables were summed to obtain the total frequency of fruit and vegetable intake. Exclusion criteria included those who reported implausible values (e.g., consuming fruits >16 times and vegetables >23 times per day). The median was then calculated using total daily fruit and vegetable intake frequency as a continuous variable (Lee & Moore, 2017). Sleep was measured by an item from the Pittsburgh Sleep Quality Index (PSQI) survey, which asked respondents to report on their usual total hours of sleep per night in the past 30 days (Buysse et al., 1989). General perceived health status was measured using the 2022 BRFSS single-item for Health Status: “Would you say that in general your health is: Excellent, Very Good, Good, Fair, Poor” (CDC, 2022).

Prioritized Agrihood Features

Items related to agrihood features were developed to assess preferences and rank priorities of neighborhood design features and number of bedrooms in prospective and current homes. Items were also developed using the contingent valuation method (Carson, 2000; Markandya et al., 2019; Mitchell & Carson, 1989) to estimate what people would be willing to pay and how much time they would be willing to spend driving in order to live in a development with specific neighborhood health and wellbeing design features. Respondents were asked to drag-and-drop the following items: “Zoned for good schools,” “Price of home,” “Proximity to work or other frequented locations,” “Proximity to

³ <https://www.cdc.gov/brfss/index.html>

family or current close friends,” “Walking distance to trails,” “Walking distance to fresh fruits and vegetables and healthy foods,” “Places nearby to exercise or be physically active,” “Easy access to nature and outdoor spaces,” “Walking distance to parks or playgrounds,” “Having safe places to walk for fun or to get to places,” “Easy opportunities and/or places to interact with others in the neighborhood,” “Peacefulness of the community,” “Living near people like myself,” “Having a farm, agriculture, Community Supported Agriculture program (CSA), or large community garden within the neighborhood,” and “Organized events and/or programming within the neighborhood” according to their importance (i.e., Extremely Important, Very Important, Moderately Important, Slightly Important, or Not At All Important). Respondents were also asked to rank these same fifteen items from 1 to 15, 1 being most important when looking for a house or place to live.

Respondents were asked questions about how much more they would be willing to pay for a similar house that: has access to more outdoor spaces and nature, has access to more places to walk and/or be physically active (e.g., trails, sidewalks, parks, fitness places); has access to more fresh fruits and vegetables and other healthy foods; that is in a neighborhood with a farm, agriculture, a CSA, or a large community garden; or that is in a neighborhood with easy opportunities and/or places to interact with others in the neighborhood, with six multiple-choice response options (i.e., None at all, \$5,000 more, \$10,000 more, \$15,000 more, \$25,000 more, or \$50,000 more).⁴ Respondents were also asked, “When looking at homes in the Indigo Community, how many bedrooms are in the home you are most interested in?” To ascertain willingness to add to commute times, respondents were asked: “How many minutes would you be willing to add to your daily commute to live somewhere that provides you with the following neighborhood amenity or resource?” Specified amenities were access to open outdoor space and nature; access to fresh fruits and vegetables and healthy foods, places to walk and/or be physically active (e.g., trails, sidewalks, parks, fitness places);

opportunities and/or places to interact with others in the neighborhood; and a farm, agriculture, CSA, or a large community garden, with seven multiple-choice response options (10 minutes, 10–20 minutes, 20–30 minutes, 30–45 minutes, 45–60 minutes, More than 60 minutes, or I would not be willing to add more time to my daily commute to have access to this amenity).

Data Collection and Analyses

Data were collected using the Qualtrics platform. After surveys were completed, the research team checked for completeness and accuracy of responses. Descriptive analyses were calculated to summarize sociodemographic characteristics, health behaviors, and neighborhood preferences. Analyses were conducted using SPSS.

Results

Among our sample of 128 respondents, most were female (71.4%) and middle-income (54.7% reported annual household incomes between \$50,000 and \$150,000). A little over half identified as non-Hispanic White (57.0%), followed by 15.6% Black, 12.5% Hispanic, and 13.3% Asian. About two-thirds (64.8%) owned their home, and nearly half (49.0%) had children under 18 living in their household. Ages ranged from 22 to 81 years, with a median age of 39 years (interquartile range [IQR]: 32–53 years). Most respondents were highly educated, with 87.5% reporting having obtained a college degree. Table 1 provides complete descriptive statistics.

In a typical week, 39.4% of respondents reported spending less than one hour in nature. During the previous month, 34.6% reported sleeping fewer than seven hours per night, falling short of the American Academy of Sleep Medicine and Sleep Research Society’s joint recommendation for promoting optimal health for adults, ≥ 7 hours of sleep per night (Watson et al., 2015), with only 28.9% reporting at least eight hours per night. About two-thirds (63.2%) self-reported meeting physical activity guidelines, ≥ 150 minutes of moderate-to-vigorous physical activity per week (U.S. Department of Health and Human Services, 2018),

⁴ All currencies are in US\$.

Table 1. Respondent Sociodemographic Characteristics

Characteristic	Number (%)
Sex (N = 126)	
Male	34 (27.0)
Female	90 (71.4)
Prefer not to answer	2 (1.6)
Sexuality (N = 126)	
Lesbian or Gay	2 (1.6)
Straight (that is, not gay)	105 (83.3)
Bisexual	8 (6.3)
Something else	5 (4.0)
I don't know the answer	1 (0.8)
Prefer not to answer	5 (4.0)
Race and Ethnicity* (N = 128)	
American Indian	1 (0.8)
Asian	17 (13.3)
Non-Hispanic Black	20 (15.6)
Hispanic	16 (12.5)
Native Hawaiian	0 (0.0)
Non-Hispanic White	67 (52.3)
Other	10 (7.8)
Marital Status (N = 128)	
Married	82 (64.1)
Divorced	16 (12.5)
Widowed	3 (2.3)
Separated	2 (1.6)
Never married	15 (11.7)
Member of an unmarried couple	10 (7.8)
Educational Attainment (N = 128)	
Grade 12 or GED (high school graduate)	1 (0.8)
College 1–3 years (some college or technical school)	15 (11.7)
College 4 years or more (college graduate)	54 (42.2)
Post-graduate degree (e.g., MS, EdD, PhD, MD, JD)	58 (45.3)
Current Residence Ownership Status (N = 128)	
Own	83 (64.8)
Rent	33 (25.8)
Other arrangement	12 (9.4)
Current Residential Urbanity–Rurality (N = 128)	
Urban	32 (25.0)
Suburban	94 (73.4)
Rural	2 (1.6)
Employment Status (N = 128)	
Employed for wages	88 (68.8)
Self-employed	14 (10.9)
Out of work \geq 1 year	1 (0.8)
Homemaker	10 (7.8)
Student	1 (0.8)
Retired	14 (10.9)

continued

averaging 3.95 hours/week (SD=3.3). About two-thirds (65.6%) reported consuming 28 servings or less of fruit per month (less than one per day, on average, compared to the recommended two servings per day) and 62.4% reported consuming 12 servings or less of vegetables per month, less than half a serving per day, on average, compared to the recommended 2.5 servings per day (U.S. Department of Agriculture & U.S. Department of Health and Human Services, 2020). Overall, 52.2% rated their general health as Very Good or Excellent.

Common measures of home ownership preference, including price (93.2%), quality of schools (59.5%), proximity to work or other frequented locations (56.5%) and proximity to family and close friends (51.8%) were frequently rated as being Extremely Important or Very Important by respondents. Features supporting active and healthy lifestyles were also highly valued, including having safe places to walk (83.1%), community peacefulness (79.0%), easy access to nature and outdoor space (76.1%), proximity to physical activity opportunities (62.9%), and walking distance to parks or playgrounds (66.1%), trails (65.3%), or fresh and healthy food outlets (49.6%). Social and community-oriented features were less frequently rated as essential, including places to interact with others (45.6%), living near like-minded people (40.3%), having a community garden, farm, or CSA (27.3%), and organized community events (16.8%). Most respondents were willing to extend commute times for access to walkable areas (86.7%) and to pay more for a home with better walkability (83.6%), with 25.8% willing to pay \$15,000 or more. Many also reported willingness to pay more and extend commutes for access to nature (76.6% and 85.9%, respectively), although fewer were willing to pay more or extend commute times for access to a community farm or garden (53.9% and 62.5%, respec-

Table 1, continued

Annual Household Income (in US\$) (N = 126)	
Less than \$25,000	1 (0.8)
\$25,000 to < \$35,000	0 (0.0)
\$35,000 to < \$50,000	3 (2.4)
\$50,000 to < \$75,000	16 (12.7)
\$75,000 to < \$100,000	21 (16.7)
\$100,000 to < \$150,000	32 (25.4)
\$150,000 to < \$200,000	19 (15.1)
Number of Children (<18 years of age) in Home (N = 123)	
0	62 (50.4)
1	27 (22.0)
2	23 (18.7)
3	8 (6.5)
4	0 (0.0)
5	3 (2.4)

* Respondents could select more than one category

tively), or to spaces that facilitate social interaction (53.9% and 62.5%, respectively). More specifically, more than half indicated willingness to extend commutes by more than ten minutes for nearby places to be active (57.8%) and be in nature

(61.8%), with less than half indicating willingness for nearby places in order to access fresh food (41.0%), social spaces (35.9%), and a community farm or garden (33.6%). See Tables 2 and 3.

Discussion

This study provides an early exploration of the demographic, behavioral, and community preferences of adults considering relocation to an agriculturally integrated neighborhood (“agrihood”). Overall, the findings suggest that agrihoods and their design features may appeal to a range of prospective homebuyers, with greater prioritization of physical activity and nature-related features than agriculture or social features, and moderate interest in access to fresh food. Our sample of 128 respondents was sociodemographically diverse in age (22–81 years), race and ethnicity, and income, although respondents were more likely to be highly educated (87.5% with a college degree), middle-

educated, and middle-income. Respondents were more likely to be highly educated (87.5% with a college degree), middle-

Table 2. Respondents’ Willingness to Pay More Money for Agrihood Amenities (N = 128; all amounts in US\$)

Willingness to Pay	None	\$5,000	\$10,000	\$15,000	\$25,000	\$50,000
More Outdoor Spaces and Nature	30 (23.4%)	37 (28.9%)	28 (21.9%)	18 (14.1%)	9 (7.0%)	6 (4.7%)
More Places to Walk and/or Be Physically Active	21 (16.4%)	45 (35.2%)	29 (22.7%)	21 (16.4%)	7 (5.5%)	5 (3.9%)
More Fresh Fruits, Veggies, and Other Healthy Foods	51 (39.8%)	54 (42.2%)	12 (9.4%)	6 (4.7%)	2 (1.6%)	3 (2.3%)
Neighborhood With Farm, Agriculture, CSA or Large Community Garden	59 (46.1%)	45 (35.2%)	13 (10.2%)	7 (5.5%)	1 (0.8%)	3 (2.3%)
Easy Opportunities and/or Places to Interact with Others in the Neighborhood	59 (46.1%)	38 (29.7%)	18 (14.1%)	6 (4.7%)	3 (2.3%)	4 (3.1%)

Table 3. Respondent Willingness to Commute More Minutes for Agrihood Amenities (N = 128)

Commuting Minutes	None	10	10–20	20–30	30–60	> 60
More Outdoor Spaces and Nature	18 (14.1%)	31 (24.2%)	48 (37.5%)	20 (15.6%)	10 (7.9%)	1 (0.8%)
More Places to Walk and/or Be Physically Active	17 (13.3%)	37 (28.9%)	41 (32.0%)	23 (18%)	9 (7.1%)	1 (0.8%)
More Fresh Fruits, Veggies, and Other Healthy Foods	37 (29.1%)	38 (29.9%)	33 (26.0%)	10 (7.9%)	9 (7.1%)	0 (0.0%)
Neighborhood With Farm, Agriculture, CSA or Large Community Garden	48 (37.5%)	37 (28.9%)	22 (17.2%)	13 (10.2%)	8 (6.3%)	0 (0.0%)
Easy Opportunities and/or Places to Interact with Others in the Neighborhood	28 (37.5%)	34 (26.6%)	25 (19.5%)	14 (10.9%)	6 (4.7%)	1 (0.8%)

income (54.7% reporting annual household incomes between \$50,000 and \$150,000), and female (71.4%). Nearly two-thirds were current homeowners, and almost half had children under 18 years of age living in the household.

Compared to the broader population of Richmond and Fort Bend County, our survey response sample reflected a somewhat distinct demographic profile. From 2019–2023, the estimated median household income in Richmond was \$87,282, and \$113,409 in Fort Bend County (U.S. Census Bureau, 2023). Educational attainment was considerably higher in our sample than in both Richmond (36.7% bachelor's degree or higher) and the county overall (49.3%) (U.S. Census Bureau, 2023). Females were also overrepresented (71.4% compared to 51.0% in both Richmond and Fort Bend County) (U.S. Census Bureau, 2023). The local median ages resembled our sample, 34.9 years in Richmond and 37.1 years countywide, which captured a range of both younger and older prospective homebuyers (U.S. Census Bureau, 2023). Racial and ethnic diversity was lower than that of the surrounding communities: Richmond and Fort Bend County include sizeable Hispanic (39.0% and 24.0%, respectively) and Black (18.0% and 20.0%, respectively) populations. Although our sample is distinct from the surrounding area, it does not necessarily reflect all who are interested in agrihood living, considering our limited response rate.

Despite strongly expressed interest in a community model emphasizing opportunities for physical activity and nature, and tempered interest in opportunities related to food systems, many respondents reported relatively low engagement in recommended health behaviors. About two-fifths (39.4%) spent less than one hour per week in nature, about one-third (34.6%) slept fewer than the recommended seven hours per night, and 36.8% fell short of recommended physical activity levels (i.e., they reported engaging in less than 150 minutes of moderate-to-vigorous physical activity per week). Fruit and vegetable consumption was also below public health guidelines, with nearly two-thirds (65.6%) consuming less than one serving of fruit daily and a similar proportion (62.4%) consuming less than half a serving of vegetables daily. Although over half rated their general health

as Very Good or Excellent, self-reported perceptions did not consistently align with evidence-based health behaviors, underscoring an important opportunity for built environment designs to support healthier daily routines.

Homebuying preferences reflected both conventional and health-oriented priorities. Traditional factors such as price (93.2%), school quality (59.5%), and proximity to work or other frequented locations (56.5%) and to family and close friends (51.8%) remained central. However, many respondents also prioritized features linked to healthier living, such as safe places to walk (83.1%), peaceful surroundings (79.0%), and easy access to nature and outdoor spaces (76.1%). Social or communal features such as organized events and proximity to like-minded neighbors were less frequently prioritized, although a substantial proportion of residents expressed a willingness to financially invest more for enhanced walkability and nature access. For example, 83.6% were willing to pay more for a home with better neighborhood walkability, one-quarter of whom were willing to pay \$15,000 or more.

Taken together, these findings highlight an emerging public health opportunity that needs to be further studied in larger longitudinal samples, examining how behaviors are influenced by residing in an agrihood. Agrihoods represent a novel residential model that merges traditional homebuying considerations with built environment and social features known to facilitate preventive health behaviors. Importantly, although our sample is relatively small, the appeal of agrihoods appears to extend beyond prospective homebuyers who currently meet recommended guidelines for health behaviors such as sleep, physical activity, and diet. This suggests that agrihoods may not only attract individuals already engaged in healthy lifestyles but also those who view these environments as potential catalysts for positive behavior change. Understanding the motivations and expectations of prospective residents offers insight into how communities intentionally designed around nature, activity, food systems, and social connection may shape health outcomes over time.

For researchers, this emphasizes a need to investigate place-based determinants of health

beyond conventional settings, using longitudinal and mixed-method approaches to assess lived experiences, behavioral change, and objective outcomes (Zheng et al., 2024). For practitioners, including planners, developers, and public health professionals, the evidence points to growing demand for health-oriented residential features such as trails, green space, and overall walkability that can be integrated into new developments or retrofitted into existing ones (Frumkin et al., 2017). For policymakers, agrihoods present an opportunity to incentivize residential models that embed preventive health into housing and land use through supportive zoning reforms, tax incentives, and grants (Sangroniz et al., 2024). Collectively, these implications suggest several avenues for expanding the public health intervention toolkit in transformative ways, creating replicable and scalable residential models that can promote both individual and community wellbeing.

Several limitations should be acknowledged. This study relied on a self-selected convenience sample of individuals already interested in agrihood living, which may limit generalizability to broader homebuyer populations. Respondents were disproportionately female and highly educated, which may reflect recruitment methods and the demographics of early adopters. Because the survey was conducted in English, non-English-speaking adults may have been underrepresented. Non-response bias is also possible, as only 128 of 307 individuals who opened the survey completed it. In addition, a small proportion of respondents did not complete several of the priority-ranking items, resulting in limited or missing data for those measures. While this study provides valuable information regarding an emerging trend that aligns with evidence-based health promotion practices, the sample is relatively small and was recruited from a prospective buyer list for one specific agri-

hood located in Texas, limiting generalizability. Willingness to pay and to commute items for “more places to walk or be physically active” did not explicitly state “outdoor or indoor.” While places to be physically active could be situated either indoor or outdoor, given the item wording we are unable to distinguish between these. Finally, health behaviors were self-reported and therefore subject to recall and social desirability bias.

Conclusions

Future research should employ longitudinal designs to determine whether relocation to an agrihood translates into measurable improvements in physical, mental, and social health outcomes. Mixed-method studies could further explore residents’ lived experiences and identify the design elements that contribute the most to health and wellbeing. Comparative studies with conventional neighborhoods would clarify the unique contributions of agrihood features, while economic analyses could assess long-term value for both residents and communities. In sum, this emerging line of research has the potential to inform our understanding of how agrihood environmental characteristics impact health, which in turn could provide support for a scalable, health-promoting model of residential development—bridging public health, land use planning, and sustainability in everyday living environments.

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References

- Breger, B. (2020). *Understanding agrihoods: An exploration into the growing trend of farm-to-table communities across the United States* [Master’s thesis, University of Massachusetts, Amherst]. Atmire Open Repository.
https://scholarworks.umass.edu/masters_theses_2/934/
- Buysse, D. J., Reynolds, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28(2), 193–213.
[https://doi.org/10.1016/0165-1781\(89\)90047-4](https://doi.org/10.1016/0165-1781(89)90047-4)

- Carson, R. T. (2000). Contingent valuation: A user's guide. *Environmental Science & Technology*, 4(8), 1413–1418. <https://econweb.ucsd.edu/~rcarson/papers/CVusersguide.pdf>
- Centers for Disease Control and Prevention [CDC]. (2022). *Behavioral Risk Factor Surveillance System. BRFSS questionnaire*. U.S. Department of Health and Human Services. <https://www.cdc.gov/brfss/questionnaires/index.htm>
- CDC. (2024). *Social determinants of health (SDOH)*. U.S. Department of Health and Human Services. <https://www.cdc.gov/socialdeterminants/index.htm>
- CDC. (2025). *Fast facts: Health and economic costs of chronic conditions*. U.S. Department of Health and Human Services. <https://www.cdc.gov/chronic-disease/data-research/facts-stats/index.html>
- Danquah, I. H., Petersen, C. B., Skov, S. S., & Tolstrup, J. S. (2018). Validation of the NPAQ-short: A brief questionnaire to monitor physical activity and compliance with the WHO recommendations. *BMC Public Health*, 18(1), Article 601. <https://doi.org/10.1186/s12889-018-5538-y>
- Dixon, B. N., Ugwoaba, U. A., Brockmann, A. N., & Ross, K. M. (2021). Associations between the built environment and dietary intake, physical activity, and obesity: A scoping review of reviews. *Obesity Reviews*, 22(4), e13171. <https://doi.org/10.1111/obr.13171>
- Donnally, T. (2015). Growing sociability: Integrating communal spaces with development. *Urban Land Magazine*. Urban Land Institute. <https://urbanland.uli.org/development-business/growing-sociability-integrating-communal-spaces-development>
- Frumkin, H., Bratman, G. N., Breslow, S. J., Cochran, B., Kahn, P. H., Jr., Lawler, J. J., Levin, P. S., Tandon, P. S., Varanasi, U., Wolf, K. L., & Wood, S. A. (2017). Nature contact and human health: A research agenda. *Environmental Health Perspectives*, 125(7), Article 075001. <https://doi.org/10.1289/EHP1663>
- Hacker, K. (2024). The burden of chronic disease. *Mayo Clinic Proceedings: Innovations, Quality & Outcomes*, 8(1), 112–119. <https://doi.org/10.1016/j.mayocpiqo.2023.08.005>
- James, P., Hart, J. E., Arcaya, M. C., Feskanich, D., Laden, F., & Subramanian, S. V. (2015). Neighborhood self-selection: The role of pre-move health factors on the built and socioeconomic environment. *International Journal of Environmental Research and Public Health*, 12(10), 12489–12504. <https://doi.org/10.3390/ijerph121012489>
- Kellert, S. R., Case, D. J., Escher, D., Witter, D. J., Mikels-Carrasco, J., & Seng, P. T. (2017). *The nature of Americans: Disconnection and recommendations for reconnection*. NatureOfAmericans.org. https://natureofamericans.org/sites/default/files/reports/Nature-of-Americans_National_Report_1.3_4-26-17.pdf
- Kochanek, K. D., Murphy, B. S., Xu, J., & Arias, E. (2022). *Mortality in the United States, 2022* (NCHS Data Brief No. 492). National Center for Health Statistics, U.S. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. <https://www.cdc.gov/nchs/products/databriefs/db492.htm>
- Lee, S. H., & Moore, L. (2017). *A data user's guide to the BRFSS fruit and vegetable questions: How to analyze consumption of fruits and vegetables*. U.S. Centers for Disease Control and Prevention, U.S. Department of Health and Human Services. <https://www.cdc.gov/nutrition/downloads/data-users-guide-brfss-fruit-and-vegetable-questions-508.pdf>
- Lewis, E. C., Umstatted Meyer, M. R., Janda-Thomte, K. M., Maddock, J. E., Palma, M. A., McNeely, A. C., Olawuyi, Y. O., & Seguin-Fowler, R. A. (2025). Cultivating connection between community, agriculture, food, and green space: A narrative review of agrihoods and their impact on health and wellbeing. *Public Health in Practice*, 11, Article 100695. <https://doi.org/10.1016/j.puhip.2025.100695>
- Maddock, J. E., Lewis, E. C., Villarreal, D. L., MacMillan Uribe, A. L., Janda-Thomte, K. M., Han, G., Hall, C. R., Sturdivant, R. X., Patterson, M. S., Graham, M. L., Seguin-Fowler, R. A., & Umstatted Meyer, M. R. (2025). Protocol for a naturalistic study of residents living in an agriculturally-integrated ("agrihood") neighborhood. *Frontiers in Public Health*, 13, Article 1679602. <https://doi.org/10.3389/fpubh.2025.1679602>
- Maddock, J. E., Suess, C., Bratman, G. N., Smock, C., Kellstedt, D., Layton, R., Christiana, R. W., Horton, T., Gustat, J., Perry, C. K., & Kaczynski, A. T. (2022). Development and validation of an attitude toward spending time in nature scale. *Ecopsychology*, 14(3), 200–211. <https://doi.org/10.1089/eco.2022.0017>
- Markandya, A., Ortiz, R. A., & Chiabai, A. (2019). Estimating environmental health costs: General introduction to valuation of human health risks. In J. O. Nriagu (Ed.), *Encyclopedia of environmental health* (2nd ed.) (vol. 2, pp. 719–727). Elsevier. <https://dx.doi.org/10.1016/B978-0-12-409548-9.10657-8>

- Mitchell, R. C., & Carson, R. T. (1989). *Using surveys to value public goods: The contingent valuation method*. RFF Press.
<https://www.taylorfrancis.com/books/mono/10.4324/9781315060569/using-surveys-value-public-goods-richard-carson-robert-cameron-mitchell>
- Murphy, K. (2014, March 11). Farm-to-table living takes root. *The New York Times*.
<https://www.nytimes.com/2014/03/12/dining/farm-to-table-living-takes-root.html>
- National Association of Home Builders. (2024, January 30). *Are agrihoods a growth opportunity?* [Blog post].
<https://www.nahb.org/blog/2024/01/agrihoods>
- Norris, M. (2018). *Agrihoods: Cultivating best practices*. Urban Land Institute.
<https://americas.uli.org/wp-content/uploads/ULI-Documents/Agrihoods-Final.pdf>
- Office of Disease Prevention and Health Promotion, U.S. Department of Health and Human Services. (n.d.). *Healthy People 2030: Neighborhood and built environment*. <https://odphp.health.gov/healthypeople/objectives-and-data/browse-objectives/neighborhood-and-built-environment>
- Rahelić, V., Perković, T., Romić, L., Perković, P., Klobučar, S., Pavić, E., & Rahelić, D. (2024). The role of behavioral factors on chronic diseases—Practice and knowledge gaps. *Healthcare*, 12(24), Article 2520.
<https://doi.org/10.3390/healthcare12242520>
- Sangroniz, A., Ebel, R., & Stein, M. (2024). Barriers and opportunities to agrihood development in growing cities of the Rocky Mountain region: A comparative case study. *Journal of Agriculture, Food Systems, and Community Development*, 13(3), 271–288. <https://doi.org/10.5304/jafscd.2024.133.031>
- U.S. Census Bureau. (2023). *Profiles. County subdivision: Rosenberg-Richmond CCD, Fort Bend County, Texas*.
<https://data.census.gov/profile?q=Rosenberg-Richmond+CCD,+Fort+Bend+County,+Texas>
- U.S. Department of Agriculture & U.S. Department of Health and Human Services. (2020). *Dietary guidelines for Americans, 2020–2025*. <https://www.dietaryguidelines.gov/>
- U.S. Department of Health and Human Services. (2018). *Physical activity guidelines for Americans* (2nd ed.).
https://odphp.health.gov/sites/default/files/2019-09/Physical_Activity_Guidelines_2nd_edition.pdf
- Watson, N. F., Badr, M. S., Belenky, G., Bliwise, D. L., Buxton, O. M., Buysse, D., Dinges, D. F., Gangwisch, J., Grandner, M. A., Kushida, C., Malhotra, R. K., Martin, J. L., Patel, S. R., Quan, S. F., & Tasali, E. (2015). Recommended amount of sleep for a healthy adult: A joint consensus statement of the American Academy of Sleep Medicine and Sleep Research Society. *Sleep*, 38(6), 843–844. <https://doi.org/10.5665/sleep.4716>
- White, M. P., Alcock, I., Grellier, J., Wheeler, B. W., Hartig, T., Warber, S. L., Bone, A., Depledge, M. H., & Fleming, L. E. (2019). Spending at least 120 minutes a week in nature is associated with good health and wellbeing. *Scientific Reports*, 9, Article 7730. <https://doi.org/10.1038/s41598-019-44097-3>
- Zhang, Y., Liu, N., Li, Y., Long, Y., Baumgartner, J., Adamkiewicz, G., Bhalla, K., Rodriguez, J., & Gemmell, E. (2023). Neighborhood infrastructure-related risk factors and non-communicable diseases: A systematic meta-review. *Environmental Health*, 22(1), Article 2. <https://doi.org/10.1186/s12940-022-00955-8>
- Zheng, C., MacRae, C., Rowley-Abel, L., Arakelyan, S., Abubakar, E., Dibben, C., Guthrie, B., Marshall, A., & Pearce, J. (2024). The impact of place on multimorbidity: A systematic scoping review. *Social Science & Medicine*, 361, Article 117379. <https://doi.org/10.1016/j.socscimed.2024.117379>