

# **Aging in Place in Memphis**

## **Evaluation Findings and Recommendations for Habitat for Humanity of Greater Memphis**

### **Prepared for**

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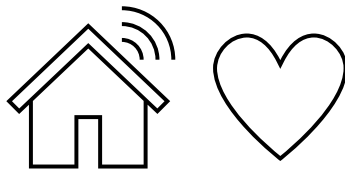
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*Note:* This final report was developed and edited by Dr. JoAnna Boudreaux, who integrated the project's qualitative, quantitative, and spatial findings and prepared the final evaluation and recommendations in collaboration with the research team.

## Executive Summary

This report presents findings from a 2026 community-engaged research and evaluation partnership between Habitat for Humanity of Greater Memphis and the University of Memphis through the Assisi Fellows for Systemic Change. The project examined the experiences of homeowners who had received repairs or modifications through Habitat's Aging in Place (AIP) program and considered how housing conditions, home repairs, neighborhood environments, and program practices affect older adults' ability to remain safely and independently in their homes.

Habitat's Aging in Place program serves primarily older homeowners who meet program eligibility and income requirements, as well as qualifying households in which disability creates an accessibility need. Repairs and modifications may address critical housing conditions as well as accessibility and safety needs. The homeowners included in this study received AIP services between 2024 and 2026.

The project used a mixed-methods design combining structured phone surveys, quantitative analysis, semi-structured in-person interviews, qualitative analysis, and Geographic Information Systems (GIS) mapping. Across study components, 38 unique

AIP clients participated. Thirty-seven completed phone surveys, and 15 participated in in-depth interviews; 14 of the interview participants also completed the phone survey.

Emily Thomson led the quantitative analysis of the survey data, helping the research team identify patterns in participants' reported experiences with repairs, communication, housing conditions, and program outcomes.

A smaller group of 15 homeowners participated in in-depth interviews that explored homeownership, housing conditions, family and community relationships, health and safety, neighborhood experiences, and the meaning of remaining at home. Interview transcripts were de-identified and analyzed using an inductive thematic approach. Researchers conducted line-by-line coding to identify patterns and themes emerging from participants' accounts, followed by additional rounds of coding and review that organized and interpreted these themes in relation to the study's research questions. GIS analysis was used to examine the geographic relationship between indicators of aging-in-place vulnerability and the distribution of completed AIP repairs across Shelby County.

Across these sources of data, several central findings emerged.

First, housing conditions prior to repair sometimes created meaningful barriers to safe and comfortable continued residence. Participants described leaking roofs, deteriorating floors, inaccessible bathrooms, mobility barriers, heating and cooling concerns, and other conditions that became increasingly difficult to manage as they aged.

Second, home repairs and accessibility modifications frequently improved participants' experiences of their homes. Ramps, grab bars, accessible showers, roof repairs, and other interventions reduced barriers to everyday activities and contributed to participants' perceptions of safety, comfort, accessibility, and independence. Quantitative analysis of the survey data provided an important complement to participants' narratives by documenting patterns in reported repair experiences and perceived outcomes across respondents.

Third, for many participants, obtaining necessary repairs without outside assistance would have been financially difficult or unrealistic. Many homeowners were living on fixed or limited incomes while simultaneously managing rising costs associated with utilities, food, healthcare, taxes, insurance, and other necessities. Home repair assistance therefore provided benefits beyond the physical repair itself by reducing a financial burden that many participants could not readily absorb.

Fourth, participants consistently described home as much more than shelter. Homes represented autonomy, accomplishment, family continuity, memory, identity, and belonging. Many participants had lived in their homes for decades, raised children and grandchildren there, cared for family members there, and hoped eventually to pass their homes to future generations. Several newer homeowners had spent many years in Section 8-assisted or public housing. For them, homeownership represented the fulfillment of a long-held goal and the opportunity to create greater stability for themselves and their families. Across these different pathways, participants frequently expressed a desire to remain in their homes and, when possible, pass them on to future

generations. Aging in place therefore involved preserving both a physical residence and a meaningful social and family space.

Fifth, the ability to age in place depended on conditions beyond the boundaries of the house. Transportation, walkability, neighborhood safety, access to services, trusted neighbors, family relationships, and community networks all shaped participants' experiences. Older homeowners also contributed to these networks themselves through caregiving, informal neighborhood monitoring, sharing information and resources, maintaining property, and providing stability for multiple generations of family members.

Finally, the study found that substantial program benefits can coexist with unresolved needs. Participants' positive experiences with repairs did not necessarily mean that every housing need had been addressed. Interviews, survey administration, and quantitative analysis also identified opportunities to strengthen communication, contractor and subcontractor practices, warranty information, follow-up procedures, and pathways for addressing concerns after project completion.

The report therefore recommends strengthening AIP through several complementary strategies: using spatial analysis to support targeted outreach in high-need areas; examining whether repair funding limits adequately reflect the condition of older housing stock; strengthening client-centered and plain-language communication; providing communication expectations and training for contractors and subcontractors; clarifying warranty and problem-resolution procedures; developing a curated referral and resource guide for needs outside AIP's scope; and establishing a longitudinal evaluation system that includes a pre-repair baseline, an early post-repair follow-up, and a later durability and quality-assurance assessment.

Taken together, the findings demonstrate the importance of home repair as a component of aging-in-place infrastructure. Habitat's Aging in Place program does more than address individual construction problems. By helping older homeowners remain safely in homes to which they have longstanding financial, familial, and emotional ties, the program contributes to housing stability, independence, family continuity, and community connection. The integration of quantitative analysis, qualitative inquiry, and spatial analysis provides a stronger foundation for understanding these outcomes and for guiding future program improvement. Strengthening evaluation, communication, quality assurance, and targeted outreach can help ensure that those benefits remain durable over time.

## **Introduction**

### **Aging in Place as More Than Remaining in a House**

Stable, safe, and affordable housing is an important social determinant of health and well-being across the life course. For older adults, housing conditions may become particularly consequential as changes in mobility, balance, vision, strength, and health affect the ways individuals interact with their homes. Poor maintenance, inadequate heating or cooling, unsafe stairs, damaged flooring, mold, and limited accessibility can increase exposure to injury, chronic stress, and other adverse outcomes (World Health Organization [WHO], 2018). Recent evidence from a nationally representative study of older adults in the United States found that poor housing affordability was associated

with increased risks of frailty, disability, dementia, and mortality, while poor housing quality was associated with greater risks of frailty, disability, and mortality (Wang et al., 2026).

Aging in place, however, involves more than simply remaining in a physical dwelling. The ability to remain at home depends on the interaction of housing quality, accessibility, affordability, personal health and mobility, family and social relationships, and the surrounding neighborhood environment. Home modifications such as grab bars, ramps, handrails, nonslip flooring, and adequate lighting can reduce environmental hazards and make everyday activities safer and more manageable. A systematic review and meta-analysis found evidence that home-hazard modification programs can reduce falls, particularly among older adults at greater risk of falling (Lektip et al., 2023). Safe and stable housing may also support independence, social connection, and continued access to family members, neighbors, healthcare, and community resources (National Institute on Aging [NIA], 2023).

The neighborhood surrounding the home is also an important part of aging in place. Access to transportation, grocery stores, parks, healthcare services, and other amenities can shape older adults' ability to move through their communities and maintain everyday routines (Padeiro et al., 2022). Research on age-friendly environments identifies walkability, accessible transportation, and proximity to essential services as important support for mobility, independence, physical activity, and social engagement (Hansmann et al., 2024). Aging in place therefore depends not only on whether an individual can remain inside a particular house, but also on whether that house and its surrounding community continue to support safety, independence, connection, and quality of life.

These issues are especially important for older homeowners with limited financial resources. Aging may coincide with increased accessibility needs while an older home requires substantial maintenance or repair. Homeowners living on fixed or limited incomes may therefore face overlapping challenges: changes associated with an aging body, the financial realities of maintaining a household, and the physical demands of an aging housing stock. Understanding aging in place requires attention to how these conditions intersect and to the role that home repair and accessibility programs can play in helping older adults remain safely and meaningfully connected to their homes and communities.

### **Study Purpose and Goals**

This study examines how housing conditions, home repairs and modifications, financial circumstances, neighborhood environments, and broader structural conditions shape the well-being, stability, and lived experiences of older adults aging in place in Memphis and Shelby County. The project focuses on homeowners who received services through Habitat for Humanity of Greater Memphis's Aging in Place (AIP) program and uses a mixed-methods approach integrating phone surveys, in-person qualitative interviews, and Geographic Information Systems (GIS) spatial analysis.

The study had three broad goals: first, it sought to understand individual experiences of aging in place, including how housing conditions, financial burdens, repairs, and accessibility modifications relate to participants' perceptions of safety, independence, comfort, health, and belonging; second, it sought to place these experiences within the

broader historical and structural context of homeownership in Memphis, including the continuing relevance of discriminatory housing policies, residential segregation, lending practices, and other forms of housing inequality; and third, the project used spatial analysis to examine the geographic distribution of aging-in-place vulnerability across Shelby County and to compare documented indicators of need with the location of completed AIP repairs. Together, these approaches provide a framework for understanding aging in place at the individual, household, neighborhood, and programmatic levels.

## **Background and Literature Review**

Existing research demonstrates that housing is connected to health, financial stability, independence, social relationships, and neighborhood opportunity. These relationships become especially important in later life, when the condition and accessibility of the home may increasingly affect an individual's ability to live independently. At the same time, the ability to maintain a home is shaped by broader economic, historical, and neighborhood conditions. The literature reviewed below provides the foundation for examining aging in place as the intersection of housing quality, accessibility, financial resources, social and neighborhood environments, and structural housing inequality.

### **Housing as a Social Determinant of Health**

The World Health Organization describes social determinants of health as the nonmedical conditions that shape health and well-being, including the conditions in which people are born, grow, live, work, and age. Housing, income, wealth, transportation, education, and social relationships are among the social and economic factors consistently associated with population health outcomes (Braveman & Gottlieb, 2014; World Health Organization [WHO], n.d.).

Housing is increasingly recognized as an important social determinant of both physical and mental health (Baker et al., 2017; Bentley et al., 2016). Research has linked structural and environmental housing conditions (i.e., moisture, pests, inadequate ventilation, and other forms of poor housing quality) to adverse health outcomes, particularly among lower-income populations. Housing as a social determinant of health extends beyond the physical structure itself, however. Housing affordability, stability, safety, tenure, and neighborhood conditions may also shape health and well-being (D'Alessandro & Appolloni, 2020).

Bonnefoy (2007) similarly conceptualizes housing quality as encompassing both the physical condition of the home and the physical and social environment in which it is located. Poor-quality housing and adverse neighborhood environments may therefore expose residents to multiple and overlapping sources of stress and risk (Healthy People 2030, n.d.). Housing affordability represents another important pathway. Studies have found associations between unaffordable housing and psychological distress, anxiety, and lower overall well-being even after accounting for broader financial hardship (Bentley et al., 2016; Kottke et al., 2018).

Housing tenure may also shape both material and psychosocial experiences. Homeownership and renting can differ in terms of housing costs, security, control, maintenance responsibilities, and opportunities to build wealth. Research suggests that renters facing housing affordability stress may be particularly vulnerable to

declines in mental health, illustrating how housing systems can reproduce broader social and health inequalities (Botha et al., 2024). For older homeowners, however, ownership does not necessarily eliminate housing-related vulnerability. The costs of maintaining and repairing a home may create a different set of challenges, especially for those living on fixed or limited incomes.

### **Home Modifications, Accessibility, and Aging in Place**

The design and physical condition of a home can significantly affect quality of life and the ability to remain independent in later life. Oswald et al. (2007) demonstrate that the relationship between older adults and their home environments is closely connected to independence and well-being. When a home no longer fits the physical capacities of its occupants, ordinary activities such as bathing, entering and leaving the home, using stairs, or moving between rooms may become increasingly difficult.

Research on home modifications demonstrates the potential importance of adapting the physical environment to changing needs. Accessibility improvements such as ramps, handrails, grab bars, and bathroom modifications may reduce physical barriers, support independence, and reduce some caregiving demands. Carnemolla and Bridge (2019), for example, found that home modifications can reduce the amount of assistance required from both formal and informal caregivers. Their findings support approaches to community care that recognize housing design and accessibility as part of supporting independent living.

More recent studies similarly emphasize housing adaptability as an important component of aging in place. Wu and Grundy (2025) identify housing adaptations as relevant to older adults' well-being and trajectories of disability. Taken together, this research suggests that the home should not be viewed as a passive backdrop to aging. Its design, accessibility, maintenance, and adaptability can either support or constrain daily functioning as residents' needs change.

### **Neighborhoods and Age-Friendly Environments**

Aging in place also extends beyond the boundaries of the individual household. The broader built and social environment can influence mobility, independence, social engagement, access to resources, and quality of life in later years (Jacobs et al., 2009). Research on age-friendly environments therefore emphasizes the importance of considering both housing and neighborhood conditions.

The design and location of housing affect whether older adults can safely access transportation, services, social activities, healthcare, and other resources. Neighborhood characteristics such as traffic, crime, walkability, transportation access, environmental conditions, and proximity to commercial or industrial uses may contribute to physical and psychological well-being over time (Jacobs et al., 2009). A systematic review of the built environment and aging in place likewise emphasizes the importance of thoughtful housing and community design in supporting older adults (E et al., 2024).

Gripko and Joseph (2024) further emphasize the relationship between the built environment and older adults' physical and social engagement. From this perspective, an age-friendly environment cannot be defined only by what occurs inside the home. It also requires communities that allow older adults to remain connected to services,

relationships, and everyday activities. Neighborhood environments that support mobility, autonomy, social participation, and access to resources therefore form an important component of aging in place.

### **Historical Housing Inequality and Homeownership**

Contemporary housing conditions are also shaped by historical and structural inequalities. Research has documented how racial discrimination in housing markets, redlining, residential segregation, discriminatory lending, urban renewal, and suburban development contributed to unequal access to housing opportunity and wealth accumulation, particularly among Black Americans (Swope & Hernandez, 2019).

Although explicitly discriminatory housing policies have changed over time, their effects can persist through residential patterns, neighborhood investment, housing quality, property values, and unequal access to resources. Research examining redlining, for example, demonstrates connections between historically discriminatory housing practices and contemporary forms of racial and health inequality (Kisa & Kisa, 2025). Housing inequality is therefore intertwined with broader patterns of structural racism and unequal opportunity (Bonilla-Silva, 1997).

Residential segregation provides one mechanism through which these historical inequalities may continue to shape conditions experienced by older adults. Bailey et al. (2017) describe structural racism as operating through interconnected social systems, including housing and neighborhood conditions. Communities affected by longstanding disinvestment may contain older and more deteriorated housing stock while also having fewer resources available to residents to address those conditions.

An equity-focused approach to housing therefore requires attention not only to individual circumstances but also to the policies and structures through which unequal housing conditions were produced and maintained. Douglas et al. (2019) emphasize the importance of allocating resources according to need, incorporating the perspectives of marginalized communities, and creating mechanisms for accountability when addressing health inequities. These considerations provide important context for evaluating programs serving older homeowners in historically unequal housing environments.

### **Fixed Incomes and the Cost of Aging in Place**

Financial pressures can strongly shape whether older homeowners are able to remain safely in their homes. Many older adults rely on fixed incomes such as Social Security while continuing to face the costs associated with utilities, property taxes, insurance, routine maintenance, and major home repairs. Research from the Institute for Housing Studies (2025) documents the challenges lower-income and older homeowners face in maintaining housing stability, while national research indicates that adults aged 65 and older have accounted for a substantial share of recent growth in homeowner cost burdens (Wedeen, 2026).

Financial limitations can be especially consequential when a home requires expensive repairs. Lower-income homeowners living in older homes may spend less on maintenance than higher-income owners living in newer housing, not necessarily because their repair needs are lower, but because fewer resources are available to address them (Wedeen, 2026). As repair needs accumulate, older homeowners may be

forced to postpone necessary work, assume debt, or live with conditions that affect the continued usability of the home.

These financial pressures also have implications beyond the immediate homeowner. For households in which the home represents a primary source of family wealth, an inability to maintain the property may affect the possibility of transferring housing assets to future generations. The financial sustainability of homeownership is therefore central to understanding aging in place, particularly among lower-income older adults.

### **Disability, Accessibility, and Housing Fit**

Disability can compound housing-related challenges in later life. An estimated 44 percent of households headed by individuals aged 65 and older need accessibility features because of disability or difficulty using parts of the home without assistance, while fewer than one-third of U.S. homes include basic accessibility features such as a no-step entry (Will, 2015).

Mobility limitations are among the most common forms of disability experienced by older adults, and functional vulnerability is associated with factors including income and living arrangement (Lee et al., 2024). A home that once met a resident's needs may therefore become increasingly difficult to navigate as physical abilities change. Stairs, bathrooms, entrances, flooring, and other features can create barriers that affect safety and independence.

The concept of housing fit is useful for understanding this relationship. Aging in place depends not simply on the condition of a home but on the degree to which that home continues to match the abilities and needs of its occupants. Repairs and accessibility modifications may therefore serve different but complementary purposes: one addresses deterioration or unsafe housing conditions, while the other adapts the environment to the changing physical needs of the resident.

### **Aging Housing Stock as a Structural Driver of Need**

The age of the housing stock represents another important source of aging-in-place vulnerability. The median age of owner-occupied homes in the United States reached 44 years in 2023, compared with 28 years in 1993, and a substantial portion of the owner-occupied housing stock was built before 1980 (Zhao, 2025; Wedeen, 2026).

Older homes are also disproportionately likely to require repairs. According to the Joint Center for Housing Studies of Harvard University (Wedeen, 2026), 48 percent of homes built before 1940 required at least one repair in 2024, compared with 26 percent of homes built since 2000. Repair costs were also higher among older properties.

For older homeowners, the age of the resident and the age of the house may therefore interact. As residents experience changing mobility or accessibility needs, the physical structure itself may simultaneously require more extensive maintenance. When these circumstances are combined with limited financial resources, the ability to remain safely at home may depend increasingly on access to repair and modification assistance. Housing age thus functions as a place-based contributor to both financial and physical vulnerability.

## Identifying Need Through Spatial Analysis

Because aging-in-place vulnerability is shaped by both household and neighborhood conditions, Geographic Information Systems (GIS) offer one method for examining how need is distributed across space. Researchers increasingly use GIS to identify geographic concentrations of vulnerability among older populations, often drawing on composite measures that combine socioeconomic, demographic, and housing-related indicators.

The Centers for Disease Control and Prevention's Social Vulnerability Index provides one example of this approach by combining multiple census-based indicators to identify communities that may experience greater vulnerability. Related research illustrates the value of examining multiple dimensions of need simultaneously. Hames et al. (2017), for example, used census-tract data to identify geographic clusters of vulnerability that were not readily apparent in population-wide analysis. Friedman et al. (2025) similarly mapped older-adult neighborhood vulnerability across New York State and found that communities with high concentrations of older adults living alone and in poverty experienced disadvantages across several socioeconomic and service-related dimensions.

These studies demonstrate how spatial analysis can identify concentrations of need that may not be evident from administrative program data alone. For an aging-in-place repair program, mapping indicators of vulnerability alongside the geographic distribution of completed repairs can provide an additional tool for examining whether services are reaching areas in which need may be concentrated.

Taken together, the literature establishes aging in place as a multidimensional issue. Housing quality and affordability, accessibility and disability, aging housing stock, neighborhood environments, historical housing inequality, and financial resources can interact to shape older adults' ability to remain safely and independently at home. These relationships provide the conceptual foundation for the present study and for its examination of individual experiences, home repair and modification, family and community relationships, neighborhood conditions, and the geographic distribution of need across Shelby County.

## Research Questions

This project examined aging in place at multiple levels, including the meaning of home and homeownership to older adults, the effects of home repairs and accessibility modifications, the role of family and community relationships, the broader neighborhood and structural environment, and the implementation of Habitat for Humanity of Greater Memphis's Aging in Place program. The study was guided by the following research questions:

1. How do older homeowners understand the meaning of home and homeownership in relation to aging in place?
2. How do housing conditions, home repairs, and accessibility modifications shape older adults' perceptions of safety, independence, comfort, health, and quality of life?

3. How does aging in place relate to older adults' ability to maintain family relationships, caregiving roles, social connections, and forms of community participation?
4. How do neighborhood conditions (i.e., safety, transportation, walkability, access to services, and community resources) shape older adults' ability to age in place?
5. Where is aging-in-place vulnerability geographically concentrated across Shelby County, and to what extent does Habitat for Humanity of Greater Memphis's Aging in Place repair activity align with areas of documented need?
6. What aspects of the Aging in Place program's communication, repair process, follow-up, and evaluation practices could be strengthened to better support clients over time?

## **Project Methodology**

### **Study Design and Participants**

From January through August 2026, the Assisi Fellows for Systemic Change partnered with Habitat for Humanity of Greater Memphis to examine the experiences of homeowners who had participated in Habitat's Aging in Place (AIP) program. The partnership was designed both to support Habitat's internal learning and program development and to contribute to a broader understanding of the role that housing conditions, home repair, accessibility, financial circumstances, family relationships, and neighborhood environments play in aging in place in Memphis and Shelby County.

The project used a mixed-methods design combining structured phone surveys, in-depth semi-structured interviews, qualitative analysis, and Geographic Information Systems (GIS) spatial analysis. A total of 38 AIP clients participated in one or more components of the study. Thirty-seven clients completed the phone survey, and 15 participated in an in-person interview. Fourteen of the interview participants also completed the phone survey, while one participated only in the interview component.

All study participants had received services through Habitat for Humanity of Greater Memphis's Aging in Place program between 2024 and 2026. Participants were primarily aged 62 or older, consistent with the program's age eligibility guidelines, although the AIP program also serves qualifying households in which disability creates an accessibility need. Program participants were homeowners who met income eligibility requirements established by the U.S. Department of Housing and Urban Development (HUD).

### **Phone Surveys**

Habitat for Humanity of Greater Memphis uses follow-up surveys to gather information about clients' experiences after participating in the Aging in Place program. At the time of this study, Habitat aimed to conduct follow-up surveys approximately two months, one year, and three years after completion of AIP services. The existing Habitat survey instrument was provided to the research team and uploaded into Qualtrics for administration.

Phone survey data were collected in May 2026. The research team completed 37 surveys with AIP clients who had received services between 2024 and 2026. Survey conversations generally lasted between 20 minutes and one hour.

The research team used Google Voice to place calls from telephone numbers with a local 901 area code. The use of a local number was intended to increase the likelihood that clients would answer calls and feel comfortable participating in the survey.

During the first several survey calls, the research team found that many participants wanted to provide additional information about their experiences with the Aging in Place program beyond the response options included in the original survey instrument.

Qualitative follow-up questions were therefore incorporated into subsequent survey conversations to provide participants with additional opportunities to describe their experiences with repairs, communication, housing conditions, and the AIP process. These responses provided contextual information that complemented the structured survey data.

### **Participant Interviews**

The study also used in-person semi-structured interviews to develop a deeper understanding of participants' experiences with homeownership and aging in place. Fifteen AIP homeowners participated in the interview component of the study. Participants were located throughout Shelby County and were purposively selected from among homeowners who had received repairs or accessibility modifications through Habitat's Aging in Place program.

The interviews explored participants' experiences with homeownership, housing conditions, financial circumstances, repairs and modifications, health and safety, family relationships, neighborhood conditions, community connections, and the meaning of remaining in their homes as they aged. This qualitative approach allowed participants to describe experiences that could not be fully captured through structured survey questions and provided greater insight into how housing, family, neighborhood, and personal circumstances intersect in the experience of aging in place.

Many of the interviewed homeowners were retirees living on fixed or limited incomes, while others continued to work in lower-income employment. Some participants also experienced disabilities, chronic health conditions, or mobility limitations that affected how they interacted with their homes. These circumstances provided important context for understanding participants' experiences with housing repairs and accessibility modifications.

### **Qualitative Data Analysis**

Qualitative data analysis followed an inductive thematic approach in which patterns, codes, and themes were developed from the interview data (Braun & Clarke, 2006). Audio recordings of interviews were transcribed using the Microsoft Word transcription tool. Transcripts were then reviewed, cleaned for transcription errors, and de-identified before analysis. Participant names used throughout the report are pseudonyms, and identifying details were removed or altered where necessary to protect confidentiality.

Members of the research team read the transcripts multiple times to become familiar with the data. The cleaned and de-identified transcripts were also reviewed by the faculty supervisor prior to coding. Researchers then conducted manual line-by-line coding to identify recurring ideas and patterns related to aging in place, homeownership, housing conditions, health and safety, family relationships, neighborhood experiences, and other issues relevant to the study's research questions.

Following the initial coding process, additional members of the research team independently reviewed the transcripts and coding to verify interpretations and identify areas requiring further discussion or refinement. The data were subsequently imported into MAXQDA for an additional round of coding and organization. Related codes were grouped into broader themes that reflected recurring patterns across participants' accounts.

To strengthen the trustworthiness of the qualitative analysis, the research team returned repeatedly to the original transcripts and field notes, incorporated multiple-coder review, and compared patterns across different sources of data. Themes were also evaluated in relation to the study's research questions and broader project goals.

### **Spatial Data Analysis**

The GIS component of the study examined the geographic relationship between indicators of aging-in-place vulnerability and the distribution of completed AIP repairs across Shelby County. A composite Vulnerability Gap index was developed at the census-tract level to identify areas in which documented need appeared to exceed observed repair activity.

Census-tract poverty and disability rates were obtained from the American Community Survey (ACS). Habitat for Humanity of Greater Memphis provided location records for completed Aging in Place repairs. Poverty and disability rates were each normalized to a 0–1 scale using min-max rescaling and combined to create a composite Need Score. Disability was weighted more heavily than poverty in the composite measure to reflect its particular relevance to aging-in-place accessibility needs.

Completed repair locations were aggregated and normalized into a comparable measure of repair density at the census-tract level. The final Vulnerability Gap score was calculated by subtracting normalized repair density from the composite Need Score. Positive values therefore identify census tracts in which measured need exceeds observed AIP repair activity, while lower or negative values indicate areas in which repair activity is more closely aligned with (or exceeds) the measured level of need.

All spatial analysis and mapping were conducted using ArcGIS Pro. Completed AIP repair locations were overlaid on the resulting vulnerability map to allow direct visual comparison between geographically concentrated indicators of need and the distribution of program services.

## Research Findings

### Geographic Distribution of Aging-in-Place Vulnerability

Figure 1 presents the geographic distribution of aging-in-place vulnerability across Shelby County in relation to completed AIP repair locations.

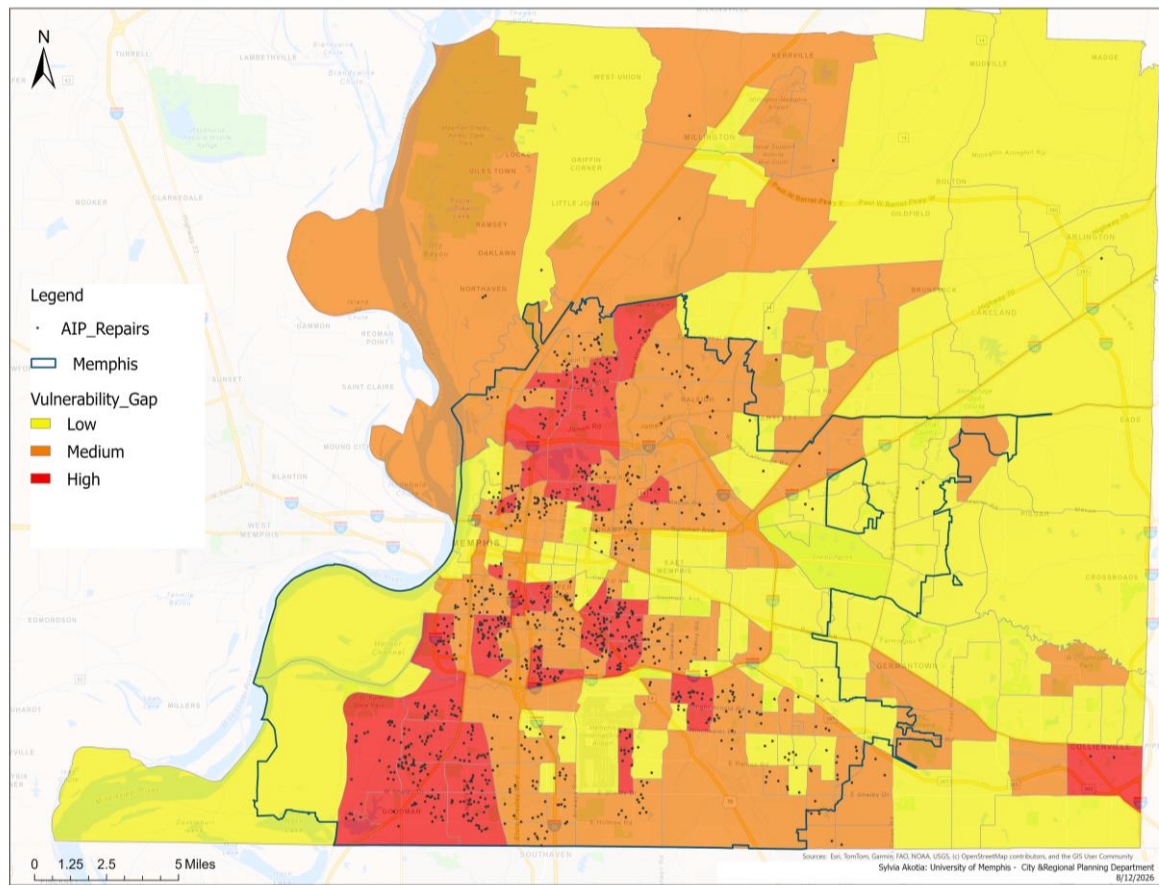


Figure 1. Aging-in-Place Vulnerability Gap and Completed AIP Repair Locations

**Note.** Positive Vulnerability Gap values indicate census tracts in which measured need exceeds observed AIP repair activity. The index is intended to identify geographic patterns and potential service gaps rather than provide a comprehensive measure of neighborhood need. *Map and spatial analysis prepared by Sylvia Akotia.*

As shown in Figure 1, the highest Vulnerability Gap scores are concentrated in Memphis's urban core and in North and South Memphis, where the tract-level poverty and disability indicators used in the index are comparatively high. Although Habitat describes its intake process as primarily driven by inbound phone calls rather than geographic targeting, AIP repair locations cluster within many of these same high-vulnerability tracts, suggesting that the program is organically reaching a meaningful share of high-need areas. At the same time, several sizable high-gap tracts, particularly in southwest Memphis, show comparatively few recorded repairs relative to documented need, pointing to a potentially important and mappable service gap rather than uniformly thin coverage. Lower-need tracts on the county's outer edges show

correspondingly little repair activity, suggesting that repair delivery is not evenly distributed even without formal geographic targeting. These findings support three practical directions: layering geographic outreach onto the existing intake process, considering whether repair funding should vary based on documented need, and tracking the Vulnerability Gap on a recurring basis to assess whether targeted efforts narrow identified gaps over time.

### **The Road to Homeownership**

This study examined how homeowners relate to their homes. To better understand this relationship, participants were asked about their personal journeys to homeownership. Going into the study, Habitat for Humanity of Greater Memphis expressed interest in learning more about AIP clients' experiences gaining and maintaining homeownership. It was originally assumed that most AIP clients would have become homeowners during the 1960s and 1970s, when redlining and other residential segregation practices had created significant barriers to homeownership.

The passage of the Fair Housing Act as part of the Civil Rights Act of 1968 formally prohibited racial discrimination in housing. This historical moment is particularly relevant to this study's population of primarily Black homeowners, all of whom attained homeownership after the passage of the 1968 law. Of the five longest-tenured homeowners, who purchased their homes between 1969 and 1973, two identified themselves as members of the first Black family to move into a predominantly White area. Overall, participants' years of home purchase spanned 52 years, with the earliest home purchase taking place in 1969 and the most recent in 2021.

Interviewees were asked to describe any challenges they experienced while purchasing their homes. Only three participants identified significant challenges during the homebuying process. One participant described her experience as:

*"Kind of hectic. Had to go through a whole lot of red tape, and you know save and a whole lot of different things. I thought I wasn't going to get it."*

The other two participants who identified challenges during the homebuying process were the only two individuals who purchased homes through foreclosure. Their challenges were uniquely related to the foreclosure process. One participant described a realtor who was unwilling to place a bid on the house, leading her to submit a bid herself. Another explained that she had to bid on her house several times over a six-month period before eventually submitting a letter to a senior employee describing her difficult experience with the company. However, the majority of AIP clients interviewed indicated that they did not experience major challenges when purchasing their homes.

Participants repeatedly noted the importance of advocacy and social capital in attaining and maintaining homeownership. Of the 15 interviewees, nine relied on one or more social network pathways to help secure their homes. These pathways included family members, friends, acquaintances, or previous homeowners. Approximately one-third of participants secured their current homes with the assistance of a former homeowner. In most cases, the previous homeowner was a family member, although in one case the previous homeowner was a former employer. In some instances, the previous owner deeded the home to the participant with little or no down payment required while the participant continued making mortgage payments.

Previous homeowners and family members also shared knowledge about the homebuying process, including how to build credit, save money, and apply for a loan, and in some cases directly advocated for participants to receive the home. Friends and acquaintances helped participants navigate the real estate system by offering their expertise and helping them locate and secure their chosen homes. These accounts illustrate how social networks could provide participants with information, advocacy, and assistance as they pursued homeownership.

Most participants noted that homeownership fulfilled a personal goal, whether that goal was owning a home generally or, more specifically, having a home for their family. Homeownership was a source of pride and accomplishment for many participants. Of the 15 women interviewed, at least six were first-time homeowners, while only three participants indicated previous homeownership. Approximately one-fifth of the women had used Section 8 housing vouchers or lived in public housing prior to attaining homeownership.

When describing the importance of attaining homeownership and leaving public housing, one participant explained:

*“I wanted to get out, get a house, so I can have something to leave my kids. And it was enough to buy one, so I wanted to do that for my children. So when I die, my kids will have somewhere to stay.”*

This sentiment was reflected across the interviews, with participants frequently describing the desire for additional space to accommodate their growing lives and families and the importance of having something they could eventually leave to future generations.

### **The Meaning of Home**

The house was found to be a strong site of attachment for participants. Over the years, the house, while a physical space in which one dwells, could also become what one participant called the “home house,” a place characterized by deep emotional attachment. The “home house,” or home, was represented as a site where realized and unrealized dreams culminated, cherished memories were made, and what bell hooks (1990) describes as “homeplace” could be cultivated.

This idea of the “home house” helps illustrate how participants’ homes were not simply dwelling spaces, but places where lives were lived and meaning was created. They became much more than physical structures. This transformation from house to home contributed to participants’ reluctance to consider alternative living arrangements, even when additional repairs were needed. Most participants expressed a strong preference for remaining in their homes, with several stating that they hoped to live there until they died or were no longer physically able to do so. Participants therefore described a dual relationship with aging in place: a deep attachment to their homes alongside recognition that additional repairs and modifications might be necessary for them to remain there long-term.

### **A Site of Dreams**

Homeownership was a personal goal for many participants throughout their lives. Achieving homeownership represented the fulfillment of a long-held aspiration and was

a source of pride. While many participants felt that they had achieved a version of the American Dream, others described something closer to a diminished or “fallen” American Dream: they had obtained the home they had long desired, but over time the home no longer served them in all the ways they had hoped.

Limited financial resources continued to be a barrier to maintaining their homes. A majority of participants lived on fixed incomes that left little money available for major home repairs. Participants described the difficult daily decisions that living on a fixed income required, including decisions about whether to allocate limited funds to food, utilities, healthcare, or household needs.

Maintaining homeownership was important to participants who hoped to secure stable housing for future generations, while others also discussed the possibility of building intergenerational wealth. The home additionally served as a mechanism through which family traditions and legacies could continue after the older adult’s lifetime. Home repair programs such as AIP may therefore support not only the older adult currently residing in the home, but also the longer-term family significance attached to that home.

### ***A Site of Remembrance***

The home also emerged as a site of remembrance in which older adults served as curators of their lived experiences. Long periods of residence contributed to strong attachments to place. Participants fondly remembered how they made their homes their own after moving in and how the home evolved alongside their changing lives, such as by adding bedrooms for children, expanding a kitchen, or updating a bathroom.

Memories of home included stories about raising families, spending time with spouses and partners, decorating for holidays, and sharing meals together. Within their homes, participants developed family traditions and passed memories, advice, and life experiences to younger generations on topics including homeownership, homemaking, parenting, relationships, and community life.

Older residents also acted as memory keepers for neighborhoods that they had watched change over time. Participants spoke fondly about how their neighborhoods had once been and remembered earlier forms of community engagement and social cohesion. Many also spoke with sadness about neighbors who had moved away or passed on and about relationships within their communities that had diminished over time. Several participants expressed hope that their neighborhoods might once again develop the level of social cohesion they remembered.

### ***A Site of Resistance***

The creation of *homeplace* was also an important way of interpreting participants’ relationships with their homes. bell hooks (1990) described homeplace as a site in which Black women and families could create spaces of dignity, care, affirmation, and resistance within a broader society structured by racial and gender inequality.

This perspective provides one way of understanding participants’ descriptions of home as a place of comfort, safety, and peace amid circumstances outside the home that were often beyond their control. Participants discussed concerns including neighborhood crime, gun violence, blight, and broader racial inequalities. Their

accounts suggest that the home could become especially meaningful as a place of refuge, autonomy, and family life precisely because other aspects of the social environment were less controllable.

### **Older Adults as Social Stabilizers**

Older adults support social stability in a variety of ways, both passively and actively. The primary areas in which participants provided support were within their families and local communities. Several participants further supported social stability through working at or volunteering with local neighborhood nonprofits and institutions. While older adults did what they could to support their families and communities, they often expressed feeling that they had less control over conditions in their broader neighborhoods. This section considers why aging in place is important not only for older adults themselves, but also for the families and communities they support.

### ***Supporting Family***

Roughly two-thirds of participants were currently supporting family members in their homes. By remaining in their homes as they aged, participants were able to provide housing support to parents, children, grandchildren, great-grandchildren, and great-great-grandchildren. The range of generations represented within participants' homes speaks to the breadth of support older adults provided. One participant lived in her father's home, where a total of five generations of family members were living under the same roof.

By seeking repairs through the Aging in Place program, participants were also working to maintain stable housing that could continue to support future generations. Despite their limited incomes, some older adults supplied food for younger generations whenever possible. Older adults also passed down teachings, traditions, and family legacies. Betty provided a particularly meaningful example of a lesson her father passed on to her and that she now shares with the next generation:

*"He said, Betty, hold out your hand. And I held my hand out. He said, what do you have in your hand? I said, I don't have nothing. He said, you remember that. There is nothing greater than you. He said, you hold in your hand what's greater than you, and that's nothing."*

The homes of older adults also frequently served as gathering places for family, especially grandchildren. When asked why she chose her home, Dorcas's response showed that her grandchildren were always on her mind:

*"When I saw the backyard, that was the first thing that dawned on me: they [her grandchildren] have somewhere to come and be safe. They have somewhere to play and have fun."*

For a smaller number of participants, however, the home could not fully function as a gathering place because additional repairs, such as plumbing repairs, were still needed. These experiences suggest that home repair programs can help restore or preserve the ability of older adults to use their homes as gathering spaces for family.

Several participants also took on caregiving roles, supporting parents, children, and grandchildren with physical or mental health needs. While roughly two-thirds of participants were currently supporting family members in their homes, participants

described supporting a wide range of family members over the course of their residence, including partners who were no longer present, parents, children, nieces and nephews, grandchildren, and great-grandchildren. Betty described providing a home for family members who otherwise “wouldn't have had any place to go.”

Homeownership, together with the ability to age in place, therefore allowed many participants to create stable homes that had supported and continued to support multiple generations of family members.

### ***Supporting Community***

Participants were not only supporting their families; many were also actively engaged in their neighborhoods and communities. Aging in place allowed older adults to remain within communities where they had often lived for many years and to continue providing support to people around them.

Older adults described their homes as models within their communities, demonstrating to younger generations what homeownership and homeplace could look like. Long-tenured homeowners also described taking on informal roles within their neighborhoods. Many acted as community confidants, providing guidance, emotional support, caregiving, and prayer to neighbors. Some shared food or assisted neighbors in other ways.

Participants also contributed to the physical appearance of their neighborhoods by maintaining lawns and gardens, cutting neighbors' grass, and keeping trees trimmed. They shared knowledge about home repair programs and offered advice about accessing resources while living on fixed or limited incomes.

One participant noticed that after her roof was replaced, other homeowners on her street began replacing their roofs as well. Her account suggests the possibility that visible investment in one home may encourage attention to surrounding properties and contribute to neighborhood pride. While this study cannot determine whether individual repairs directly increased neighborhood property values or produced broader community revitalization, participants clearly viewed the maintenance of homes as important to neighborhood stability.

Older adults also described supporting community safety by keeping a watchful eye on what was happening around them. They watched from their homes, walked through their neighborhoods, alerted neighbors when something seemed amiss, communicated with police, and in some cases participated in formal or informal neighborhood watch activities. Participants viewed these practices as contributing to a sense of mutual awareness and safety within their communities.

Several participants also engaged in volunteerism through local community development corporations, nonprofits, churches, and other neighborhood institutions. Taken together, these accounts demonstrate that older homeowners were not simply being supported by their communities; they were also contributing to the social life and stability of those communities.

### **Benefits of Psychosocial Support**

#### ***Informational Support***

For many older adults in Memphis, having a stable home created opportunities to access psychosocial support, including informational support. Findings from this study highlight informational support as an important, though sometimes overlooked, aspect of aging in place. Participants described accessing useful information through networks that shared information about health, services, referrals, home repair programs, and community resources.

Marietta described obtaining information through a neighborhood meeting:

*“I know we have a community meeting on Powers once a month every first Thursday. I haven't gone in quite a while, but I used to get a lot of information that way.”*

Her experience demonstrates how neighborhood interactions and community organizations can become information hubs over time, allowing older residents to learn about resources that might otherwise be difficult to identify or navigate independently. Sugiyama et al. (2023), in a scoping review, similarly found that access to community facilities, local businesses, and open or green spaces was associated with older adults' social interaction.

The World Health Organization identifies communication, information, and social participation as central dimensions of age-friendly communities, emphasizing that supportive environments should enable older adults to remain informed, included, independent, and engaged (WHO, 2007).

The findings also show that older adults themselves helped connect other people with useful information. Interpersonal communication helped participants learn about home-repair programs, referrals, and other community resources, and some participants advocated directly on behalf of neighbors who needed assistance.

Dorcas provided a particularly strong example when describing her efforts to obtain assistance for an older neighbor whose home was in serious disrepair:

*“God, I did get somebody to come and help her. It was raining, I mean, raining in her house. [Alcy Ball Association] put on her roof. They don't even do this area. I begged and prayed. So [Alcy Ball], one of their church members, came and did that. When they first got their grant, he said, Ms. ..., you're going to be the first stone in this. Can you go knock on some doors? Some of the seniors you think need the help? I went straight to her first because her floor was falling in. I mean, I was scared when I went in. I said, Ms. [neighbor name redacted], I'm not going to come any farther than right here. You know, we don't have a foundation, and I didn't want to fall through that lady's floor. So they came and redid her floor.”*

This finding reflects forms of bridging and linking social capital, through which people connect members of their networks with resources and institutions beyond their immediate relationships (Agger & Jensen, 2015).

### **Support from Family and Friends**

The findings also reveal the importance of family and friends in shaping older adults' experiences of aging in place and overall well-being. For participants, remaining in their own homes created opportunities to sustain meaningful relationships with children, relatives, and friends. Emotional support, companionship, and regular social

interaction appeared to contribute to participants' sense of connection and well-being while living independently.

Dorcas described how having her own home gave her a place to bring family together:

*"No more than having get-togethers or gatherings. My birthday is on July 4th, and I tried it since I have a home now. I tried to get them to bring the children over here."*

Her experience illustrates how a stable home can provide a place in which family relationships and traditions are maintained. Housing stability therefore has a social dimension as well as a physical one.

Family members and close friends also provided emotional reassurance, companionship, and assistance, helping participants remain connected to a wider social network. This can be particularly important within an aging-in-place framework because remaining at home may allow older adults to maintain familiar routines and social roles.

Betty described a strong family tradition of caring for older relatives at home:

*"Yeah, we don't believe in putting our elderly into facilities. All of my elders in the family, all of my ancestors, passed right at home. We have a home in [name of city] that my grandmother owned on 19th and Fairmount. And all of our ancestors have passed at home. And my dad, I would never put him in the facility. I would do whatever I could to make sure I can care for him to be here."*

Support from family and friends can serve as an important resource during aging or periods of ill health. Having a stable home provides a space in which these relationships can be maintained. At the same time, remaining physically housed does not necessarily prevent social isolation; an older adult who becomes disconnected from family, friends, or community may still experience loneliness and psychological distress. Malani et al. (2025), for example, found that adults aged 50 to 80 commonly reported loneliness and social isolation and that these experiences were associated with poorer physical or mental health. Research also suggests that the quality of social relationships may be particularly important among older adults, rather than simply the number of relationships they maintain (Cukrowicz et al., 2008).

Socioemotional selectivity theory provides one way of understanding this pattern. As people age and become increasingly aware of the limited time available to them, they may place greater value on emotionally meaningful relationships and prioritize close social connections (Carstensen, 1992; Ohs & Yamasaki, 2017). This framework helps explain why maintaining close-knit family and friendship networks may be especially meaningful as people age.

## **Importance of Home Modifications and Accessibility for Aging in Place**

### ***Promotes Independence and Daily Functioning***

Home modifications played an important role in preserving older adults' independence and ability to perform everyday activities safely. Judy reflected on the improvement in her home after accessibility modifications were made to her bathroom:

*“Heck, that walk-in shower, I didn't know I needed it until it was here. It is wonderful. Just the accessibility, man, it's made a tremendous difference. We love it. My mother loves it. And also, I think there's the chair lift.”*

Her experience illustrates how modifications to the physical environment can substantially change older adults' experiences of living at home. Features such as walk-in showers and chair lifts can reduce physical barriers and make activities such as bathing, moving between levels of the home, and navigating everyday spaces easier and safer. Doreen similarly described her appreciation for modifications made to her bathroom:

*“Yeah, they bought me a chair. A little bitty chair. That I told them, when how I'm going to sit down. Then they got bars. I like my shower. It make me think I'm at a hotel.”*

Her description reflects both the functional and emotional dimensions of home modification. The changes made the space easier to use while also contributing to her sense of comfort and enjoyment.

Aging may bring changes in mobility and balance, and modifications such as grab bars, handrails, ramps, and accessible showers can help older adults, particularly those with disabilities, navigate their homes more comfortably and safely. Rather than requiring residents to continually adjust to an inaccessible environment, modifications allow the home to better accommodate changes in physical functioning.

Judy's statement that she “didn't know” how much she needed the walk-in shower until it was available also suggests that older adults may adapt to barriers within their homes over time. Financial constraints or limited access to repair resources may lead residents to continue navigating difficult spaces without fully recognizing the extent to which those conditions restrict daily functioning.

### ***Mental and Physical Health***

Participants also connected housing modifications and stable housing with their perceptions of physical and mental well-being. Participants described accessibility modifications as reducing concerns about falls and injuries and providing greater peace of mind. The ability to complete daily activities with less difficulty or fear was important to their sense of independence.

Conversely, participants described inaccessible or unsafe home environments as contributing to frustration, fear, dependence, and loss of autonomy. Trusted neighbors and supportive community relationships also contributed to participants' sense of reassurance.

Sandra described the support her mother received from neighbors:

*“They always look out for my mom because they know the neighbor that lived in that house before they moved in that house. So overall, it's, as far as mental health and stuff, wellness, it's truly a blessing. Yeah, it's very positive.”*

Her account illustrates how trusted neighbors and supportive community relationships can contribute to feelings of security and reassurance. Participants' comments suggest that mental well-being in later life is connected not only to the physical condition of the home but also to social relationships and a sense of being supported.

Although this study did not independently measure clinical changes in mental or physical health, participants frequently associated safe housing, accessible home environments, and supportive relationships with reduced worry and greater peace of mind.

### **Enhancing Safety and Preventing Falls**

Home modifications also influenced participants' perceptions of safety and their ability to move into, out of, and around their homes with less fear of injury. Marietta described the difficulties she experienced with a portable ramp:

*"This ramp, like I said, I would have not been able to get in and out because of that little portable ramp. That was not good at all. Because I didn't know if I was going to be falling down, going down the ramp. You didn't know if it was going to move while you were trying to maneuver it."*

Marietta's experience illustrates how inadequate home features can make ordinary activities more difficult, particularly as mobility changes with age. It also demonstrates that simply providing an accessibility feature is not enough; modifications must be stable, appropriately designed, and suited to the individual's needs. Even in the absence of an actual fall, uncertainty about whether an entrance, floor, or ramp is safe may produce fear and hesitation. Overall, participants who received accessibility modifications were generally appreciative of the improvements.

The findings also highlight the preventive potential of home modifications. Falls among older adults can result in serious injuries, hospitalization, functional decline, and, in some cases, transitions to rehabilitation or long-term care. Participants themselves recognized this risk. Yolanda explained:

*"Yes, yes, yes, do you know if you fix the slipping or fall hazard that's in the floor, okay? You don't have to worry about Auntie, Mama, or whatever falling in the floor. Then you got, she stay in the hospital because she done broke a leg."*

Her comments show how participants understood home repairs and modifications as ways to address hazards before an injury occurred. Research likewise demonstrates the substantial burden associated with falls among older adults. The findings from this project therefore suggest that ramps, grab bars, handrails, accessible bathrooms, and other modifications can be an important component of creating safer home environments for aging in place.

### **Impact of Housing Stability on Overall Well-Being and Aging in Place**

#### **Neighborhood Crime and Safety**

The findings reveal a complex relationship between neighborhood crime, safety, and older adults' experiences of aging in place. While participants voiced concerns about criminal activity in some broader communities, many also expressed a sense of safety within their immediate neighborhoods because of relationships built over time, trusted neighbors, and informal safety practices. Dorcas described how a neighbor helped monitor her home:

*"But I love where I stay. I love, like I said, the connection. When I moved here, the woman in the orange house put me on her Ring camera so it could pick up my house too."*

Her statement demonstrates how neighbors developed their own strategies for looking out for one another. Participants described reassurance that came from knowing that someone nearby was attentive to what happened around their homes. This appeared to be particularly meaningful for some older adults living alone.

Participants who lived near police precincts also sometimes associated that presence with comfort and a sense of safety. At the same time, neighborhood safety was not experienced uniformly. Some participants who felt comfortable inside their homes still limited activities such as walking outdoors, visiting neighbors, or participating in community events because of concerns about crime.

These accounts suggest that neighborhood safety is an important component of aging in place. Feeling secure within the home does not necessarily eliminate concerns about the surrounding neighborhood, and those concerns may affect how freely older adults participate in community life.

### **Access to Social Amenities**

Conversations with older adults in Memphis also revealed the importance of access to social amenities and community resources. Transportation, walkability, grocery stores, parks, community centers, libraries, and other resources shaped participants' experiences of their neighborhoods.

Dorcas described being able to walk around her neighborhood while also taking precautions:

*"I just have to take my cane, just in case I get tired. Yeah, I walk around. I don't do it often in this neighborhood because somebody over here has this dog, some Rottweilers."*

Her experience demonstrates that neighborhood accessibility involves more than the physical presence of sidewalks or nearby destinations. Personal mobility, safety concerns, environmental conditions, and other neighborhood factors can affect whether older adults are able or willing to use available amenities.

Participants also described changes in neighborhood amenities over time. Yolanda expressed dissatisfaction with a nearby park:

*"But times have changed. Okay. The park, and I consider the park that's out here. Okay. The park. It's not a park."*

Other participants described advantages associated with living near grocery stores, public transportation, libraries, and other community resources. Betty explained:

*"No, Kroger's is around the corner. Kroger's is, it is walking distance, but I don't walk it."*

She also noted the presence of a nearby police precinct and MATA bus service. Her experience demonstrates an important distinction between an amenity being geographically nearby and an older adult actually being able or willing to access it on foot.

Neighborhood walkability, transportation, and proximity to services are therefore important aspects of aging in place, but physical proximity alone does not guarantee accessibility.

### ***Feeling of Security, Comfort, and Safety***

Many participants expressed feeling safe and comfortable inside their homes even when they had concerns about crime or other problems in the surrounding neighborhood. This theme appeared repeatedly in interviews about home repairs and modifications.

Interestingly, participants whose homes still had unresolved repair or accessibility needs often expressed the same attachment to and comfort within their homes. Their desire to remain suggests the importance of familiarity and emotional attachment to place. Betty described this distinction clearly:

*“Even though this area is very dangerous, I’m still comfortable in here.”*

Her statement captures the difference between perceptions of the broader neighborhood and feelings of safety and comfort within the home itself.

Participants’ accounts suggest that emotional attachment to home can remain strong even when the physical home or surrounding neighborhood is imperfect. Feeling comfortable and secure at home was frequently associated with reduced worry and greater peace of mind. At the same time, these findings reinforce the importance of considering both the interior home environment and the surrounding neighborhood when evaluating the conditions that support aging in place.

### ***Social Connectedness, Community Belonging, and Social Capital***

Another important finding was the social connections and sense of community belonging that many participants had developed over time. Long-term residence allowed participants to become familiar members of their neighborhoods and communities, creating relationships that provided information, companionship, and a sense of inclusion. Doreen described this experience:

*“You know, if somebody has something, they invite me, they invite me to the library. They had a thing that morning there, they gave me a little radio from the Penny program. The man know me, like I said, everybody be knowing me.”*

Her comments illustrate how stable residence and long-standing community relationships can create opportunities for participation, information sharing, and access to local resources. Being known by neighbors, community organizations, and local service providers contributed to participants’ sense of inclusion and belonging.

These relationships also represent an important form of social capital. Remaining in a familiar neighborhood allows older adults to preserve social networks that may have developed over many years and could be difficult to recreate following relocation.

Socioemotional selectivity theory provides one framework for understanding the importance of these relationships. As individuals age, they may become more selective about social relationships and place greater value on emotionally meaningful connections (Carstensen, 1992; Ohs & Yamasaki, 2017).

Existing research also connects social relationships and social connectedness with physical and mental well-being. Opportunities to interact with others, attend community activities, host family and friends, and feel recognized within a neighborhood can contribute to feelings of purpose, belonging, and emotional well-

being. Relocation from a long-established neighborhood may disrupt relationships, routines, and informal networks that have accumulated over time. These forms of social capital cannot always be quickly reproduced in a new environment.

### ***Autonomy and Peace of Mind***

Findings also reveal the importance participants placed on autonomy and control over their daily lives. Having a safe and stable home allowed older adults to organize and experience everyday life according to their own preferences. Violet reflected on this during her interview:

*“I can cook when I get ready, eat when I get ready, clean when I get ready. Yeah, and wake up and sleep as long as I want to sleep, and that nature. I don't have to answer to somebody.”*

Violet's statement demonstrates how remaining in one's own home can support everyday decision-making and personal freedom. The ability to make ordinary choices about eating, sleeping, cleaning, and other daily activities without having to conform to another person's schedule or expectations was meaningful to participants.

This sense of control also contributed to participants' descriptions of peace of mind. Aging in place allowed them to remain in familiar environments and continue routines they had developed over many years.

Loretta strongly expressed her preference for remaining in her own home rather than moving to a more structured residential setting:

*“Yeah. You see I'm still here. I mean, I didn't jump up and move to the old folks home and downsize and nothing at me.”*

These accounts demonstrate how housing stability and autonomy are connected in participants' experiences of aging in place. Home modifications and repairs may support this autonomy by helping older adults continue to safely use the spaces in which they have established their daily lives.

### ***Financial Security and Affordability***

Financial security and affordability also shaped participants' ability to age in place. Many participants lived on fixed or limited incomes, making the absence of a monthly rent or mortgage payment particularly important. Doreen described the relief she felt from owning her home:

*“But I'm glad I bought mine. You know, my house, I ain't got to worry about paying the rent. Cause like now I'm on a fixed income. I don't work no more. I thank God for that.”*

For participants like Doreen, homeownership provided a degree of protection from the recurring burden of rent and uncertainty associated with rising rental costs. This stability became especially important after retirement, when income was less likely to increase.

At the same time, owning a home did not eliminate financial pressures. Participants continued to face expenses related to utilities, property taxes, insurance, food, medication, healthcare, maintenance, and home repairs. When income remained

relatively constant while these costs increased, participants had to make difficult decisions about how to allocate limited resources.

For some participants, major repairs and home modifications were therefore difficult or impossible to pay for without outside assistance. Participants described circumstances in which immediate needs such as food, utilities, and healthcare had to take priority over maintaining or modifying the home.

Aging in place thus involved financial tension. Homeownership could provide important housing stability, particularly for those who had paid off their mortgages, while the continuing cost of maintaining an aging home could create significant financial strain. Assistance with major repairs provided participants with financial breathing room while helping them preserve homes that represented both current housing security and, for many, something they hoped to pass on to future generations.

## **Program Recommendations**

The findings suggest that Habitat for Humanity of Greater Memphis's Aging in Place program is providing meaningful assistance to older homeowners while also revealing opportunities to strengthen program reach, communication, quality assurance, and long-term evaluation. The following recommendations are intended to build upon existing program strengths rather than replace current practices.

Importantly, the recommendations presented here are intended to support continued program development and should be considered in consultation with AIP staff and within the context of applicable grant requirements, funding restrictions, staffing capacity, and other operational considerations.

### **1. Use Geographic Data to Supplement Existing Outreach and Intake**

The Vulnerability Gap analysis indicates that aging-in-place need is not distributed evenly across Shelby County. Habitat should consider using spatial data as a supplement to its existing responsive intake process to identify neighborhoods in which poverty, disability, and comparatively low repair activity overlap. Targeted outreach through trusted neighborhood institutions could increase awareness of the AIP program among eligible homeowners who may not otherwise initiate contact with Habitat.

The Vulnerability Gap analysis should also be repeated periodically. A recurring analysis would allow Habitat to determine whether outreach and program investments are reaching areas of highest measured need and whether geographic service gaps change over time.

### **2. Examine Whether Repair Funding Adequately Reflects Housing Conditions**

The research suggests that homeowners with substantial repair needs may also live in older houses requiring extensive or multiple repairs. Habitat should examine whether existing per-household funding limits provide sufficient flexibility for properties with especially significant health, safety, structural, or accessibility needs.

This does not necessarily require eliminating funding limits. Rather, the organization could consider whether clearly defined exceptions, supplemental funding sources, or prioritized categories of critical repair would allow the program to respond more

effectively when the severity of housing conditions exceeds a standard repair allocation.

### **3. Strengthen Client-Centered and Accessible Communication**

Participants frequently wanted opportunities to explain their priorities, ask questions, and discuss concerns beyond what was captured through standardized forms. Communication throughout the AIP process should therefore emphasize the homeowner as an active participant in identifying needs and understanding decisions about the work performed on the home.

Program applications, contracts, warranty materials, surveys, and informational handouts should use plain language, readable formatting, and clearly defined contact information. When possible, Habitat should also provide information through multiple formats so that clients with different communication, hearing, vision, literacy, or technology needs can access it.

Community outreach materials could be distributed through churches, community organizations, senior-serving agencies, neighborhood associations, libraries, and other trusted institutions, particularly in areas identified as having high aging-in-place vulnerability.

### **4. Strengthen Contractor and Subcontractor Communication Expectations**

The quality of a homeowner's experience depends not only on the repair itself but also on communication during the construction process. Habitat should establish clear expectations for how contractors and subcontractors communicate with older clients, including how changes in schedule, scope, personnel, or project conditions are explained.

Training or orientation should address respectful communication with older adults, accessibility and disability considerations, working in an occupied home, and procedures for responding when a client raises a concern. Clients should also have a clearly identified Habitat contact or escalation pathway when a concern cannot be resolved directly with a contractor.

### **5. Clarify Warranty and Post-Repair Problem-Resolution Procedures**

Clients should receive clear written and verbal information explaining what is covered by a repair warranty, how long coverage remains in effect, whom to contact if a problem develops, and what steps to take if the original contractor is unavailable.

Habitat should also review whether existing warranty periods and follow-up procedures are sufficient for identifying problems that may not become apparent immediately after construction. Where operationally and financially feasible, the organization could explore extending selected warranty provisions or conducting a formal quality-assurance check before warranty expiration.

### **6. Develop a Curated Referral and Resource Network**

AIP clients may have housing, legal, transportation, social-service, accessibility, or repair needs that fall outside Habitat's program scope or available funding. Habitat could strengthen its role as a connector by maintaining a concise, regularly updated resource guide for AIP participants.

The guide could include trusted home-repair programs, utility-assistance programs, transportation services, senior resources, disability and accessibility services, and legal assistance related to wills, estate planning, title issues, and heirs' property. A structured referral process would help ensure that an inability to address a particular need through AIP does not leave the homeowner without a potential next step.

## **7. Establish a Longitudinal Evaluation and Quality-Assurance System**

Habitat's existing post-repair survey provides an important foundation for program evaluation. The research team recommends expanding this approach into a longitudinal process that includes a short pre-repair baseline, an early post-repair assessment at approximately two months, and a durability and quality-assurance follow-up around 10 to 12 months after project completion.

Using comparable measures at multiple points would allow Habitat to assess change in safety, accessibility, comfort, housing-related stress, confidence in remaining at home, repair performance, and unresolved needs without relying entirely on retrospective recall.

A small number of semi-structured interviews conducted with a purposively selected group of clients at the later follow-up point could complement the survey data by identifying outcomes, concerns, and experiences that standardized measures may miss.

## **8. Use Evaluation Findings Strategically in Funding and Program Development**

The findings provide a strong basis for describing AIP as more than a construction program. Repairs and accessibility modifications are connected to participants' ability to remain safely in their homes, maintain independence, preserve family and social relationships, and manage limited financial resources.

These outcomes can be emphasized in grant applications and program materials. Where possible, future evaluation should also collect measures that allow Habitat to document changes in safety, accessibility, housing stability, and health-related experiences over time. Claims regarding healthcare utilization or cost savings should be made only when supported by appropriate data, but the broader relationship between safe housing and healthy aging provides an important framework for communicating the value of the program.

## **Evaluation and Recommendations for AIP Follow-Up Surveys**

The fellowship provided an opportunity not only to administer Habitat for Humanity of Greater Memphis's existing Aging in Place (AIP) follow-up survey, but also to observe how the instrument functioned in practice. The existing survey provides an important foundation for program evaluation because it recognizes that assessment should continue after construction is complete. At the time of this project, Habitat's survey process included follow-up at approximately two months after repair, with plans for later follow-up as well. Habitat staff subsequently noted that some items in the original SurveyMonkey implementation used skip logic developed through prior client experience; portions of this logic were not preserved when the survey was transferred to Qualtrics for the fellowship project, which may have contributed to ambiguity observed during administration

Based on survey administration and the findings of this study, we recommend developing this approach into a more intentional longitudinal evaluation process. Rather than relying primarily on participants' retrospective descriptions of conditions before repair, Habitat could collect a small set of comparable measures at several points in time. We recommend a short pre-repair baseline, retention of the approximately two-month post-repair follow-up, and an additional durability and quality-assurance assessment approximately 10 to 12 months after project completion.

We also recommend conducting semi-structured qualitative interviews with a small, purposively selected group of approximately 6 to 10 households at the 10- to 12-month point. These interviews would complement the survey data by providing greater insight into the durability of repairs, changes in accessibility and daily functioning, continuing housing needs, family and social impacts, and participants' overall experiences with the Aging in Place program.

### Proposed Longitudinal Evaluation Framework

| Stage                                             | Suggested Timing                                           | Primary Purpose                                                                                                                                                                  | Participants                                      |
|---------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|
| <b>Pre-Repair Baseline</b>                        | After acceptance into the program and before repairs begin | Document housing conditions, safety and accessibility concerns, housing-related stress, utility-cost burden, and confidence in remaining in the home                             | All participating households                      |
| <b>Early Post-Repair Follow-Up</b>                | Approximately 2 months after completion                    | Assess repair function, safety, accessibility, comfort, resident satisfaction, communication, and emerging problems                                                              | All participating households                      |
| <b>Durability and Quality-Assurance Follow-Up</b> | Approximately 10–12 months after completion                | Assess sustained repair performance, new or recurring problems, changing accessibility needs, utility-cost experiences, unresolved concerns, and confidence in remaining at home | All participating households                      |
| <b>Qualitative Interviews</b>                     | Approximately 10–12 months after completion                | Explore in greater depth how repairs have affected daily life, autonomy, family support, neighborhood experiences, and continuing needs                                          | Purposive sample of approximately 6–10 households |

#### Add a Pre-Repair Baseline

The current follow-up survey asks residents to remember what conditions were like before repairs were completed. Although participants were often able to provide useful information, retrospective questions increase recall burden and limit the ability to directly compare conditions before and after an intervention.

A short baseline survey administered after program acceptance but before repairs begin would allow Habitat to document the condition of the home and the resident's experiences at the outset. The baseline does not need to be lengthy. Its primary purpose would be to establish a small number of measures that can be repeated after

repairs, such as perceived safety, accessibility, difficulty completing everyday activities, housing-related stress, and confidence in the ability to remain at home.

Collecting the same measures at multiple points would provide stronger evidence of change than asking participants after the fact to reconstruct how they felt or functioned before repairs.

### **Retain the Approximately Two-Month Follow-Up**

The existing approximately two-month follow-up is well timed for assessing participants' early experiences after construction. At this point, residents have had enough time to use the repaired or modified space, while the repair process itself remains relatively recent.

This survey should therefore be retained but streamlined around several core areas: repair function, safety and accessibility, resident experience, communication, satisfaction, and early indications that a repair may require additional attention.

The two-month follow-up can also serve an important quality-assurance function. Questions about whether repairs are functioning as expected, whether new concerns have emerged, and whether the resident knows whom to contact if a problem develops can help identify issues before they become more difficult to resolve.

### **Add a 10- to 12-Month Durability and Quality-Assurance Follow-Up**

An early post-repair survey can document initial experiences but cannot establish whether improvements are sustained over time. A later follow-up approximately 10 to 12 months after project completion would allow Habitat to assess repair durability, continued safety and accessibility, evolving needs, and unresolved concerns.

This later survey may be especially useful when contractor or project warranties expire around one year. When feasible, conducting the quality-assurance portion of the follow-up before warranty expiration—for example, around 10 or 11 months—could provide an opportunity to identify concerns while warranty remedies may still be available.

The later follow-up should focus not only on whether the original repair remains functional, but also on whether the resident's circumstances or accessibility needs have changed. Aging in place is a dynamic process, and a home that meets a resident's needs at one point may require additional adaptation later.

### **Include a Small Qualitative Follow-Up Sample**

Structured surveys are valuable for identifying patterns, but some of the most informative findings from this project emerged when participants were given time to explain their answers.

We therefore recommend conducting semi-structured interviews with approximately 6 to 10 households at the 10- to 12-month point. Participants could be purposively selected to represent different repair types, accessibility needs, neighborhoods, lengths of residence, and a range of experiences, including very positive, mixed, and unresolved outcomes.

These interviews would allow Habitat to explore questions that are difficult to capture through fixed-response items alone. For example, residents could describe how repairs

have affected everyday routines, independence, family caregiving, social relationships, use of different areas of the home, and confidence in remaining at home. Interviews could also reveal needs or program concerns that were not anticipated when the survey was designed.

### **Expand the Use of Open-Ended Questions**

Participants frequently wanted to say more than the fixed-response options allowed. Routine surveys should remain relatively short, but including a small number of open-ended questions can capture unexpected outcomes and concerns.

Useful prompts might include:

- What is the biggest difference this repair has made in your everyday life?
- Is there anything about the repair that has not worked as you expected?
- What does your home still need for you to remain here safely?
- What could Habitat have done differently to improve your experience?
- Is there anything else you would like Habitat to know about how your home affects your independence, comfort, or ability to remain here?

These questions provide participants with an opportunity to identify issues that researchers or program staff may not have anticipated while still keeping the overall survey manageable.

### **Offer Multiple Survey Modes**

Phone-administered surveys were feasible during this project but were also labor intensive. Some participants may not answer unfamiliar telephone numbers, may have hearing difficulties, may not be available during staff calling hours, or may prefer to respond at their own pace.

At the time of enrollment, Habitat could ask participants to indicate their preferred method of follow-up. Phone surveys should remain available, particularly for residents who prefer speaking with someone directly, but other response options could include:

- a paper survey with a prepaid return envelope;
- an SMS link to a mobile-friendly survey; and
- an email survey link for participants who prefer digital communication.

For participants who select telephone follow-up, Habitat could send a brief text message before calling so that the resident knows to expect contact from the organization. Offering several response modes may increase accessibility while reducing the amount of repeated calling required to reach participants.

### **Revise Questions That Are Ambiguous or Leading**

Survey administration also identified several items that were difficult for participants to interpret or that assumed a particular type of outcome. These questions should be revised so that respondents can report positive, negative, or unchanged experiences without being guided toward a preferred answer. See Table 1.

*Table 1: Current Issues, Identified Problems, and Recommended Revisions*

| Current Issue | Problem Identified | Recommended Revision |
|---------------|--------------------|----------------------|
|---------------|--------------------|----------------------|

|                                                                                    |                                                                                                                                                                                   |                                                                                                                                                                                                                                              |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>“How long had you waited for the following repairs?”</b>                        | Participants were sometimes unsure whether “waited” referred to how long the problem existed, how long they waited before seeking assistance, or how long Habitat’s process took. | Ask: <b>“About how long had this problem existed before you contacted Habitat?”</b> If program-processing time is also important, ask about it separately.                                                                                   |
| <b>“Now that you’ve received repairs, how have the following things improved?”</b> | The wording assumes improvement before the participant answers.                                                                                                                   | Use neutral wording such as: <b>“Since the repairs were completed, what changes, if any, have you noticed?”</b> Response options should allow for substantial improvement, some improvement, no change, worsening, or substantial worsening. |
| <b>Questions asking whether repairs improved health</b>                            | These questions may encourage participants to attribute health changes directly to the repair and may produce overly positive responses.                                          | Ask the same neutral questions about comfort, safety, symptoms, or health-related experiences at baseline and follow-up, and compare responses over time.                                                                                    |
| <b>Questions about utility-cost changes</b>                                        | Participants may not know exact changes in costs, and bills are affected by weather, seasonal use, and utility rates in addition to the repair itself.                            | Ask whether utility costs have become easier or more difficult to manage and whether the participant believes the repair changed household energy use. Treat exact dollar estimates cautiously unless billing data are available.            |

### Use Evaluation as Both an Outcome and Quality-Assurance Tool

A longitudinal survey system would serve two related purposes. First, it would provide stronger evidence about participants’ experiences and the longer-term outcomes associated with AIP repairs and modifications. Second, it could function as an ongoing quality-assurance system by identifying repairs that are not functioning as expected, communication problems, unresolved concerns, or changing accessibility needs.

The goal is not to create a burdensome research process for residents or staff. A relatively short baseline and follow-up instrument containing a consistent set of core measures could provide meaningful longitudinal information while remaining feasible for routine program administration. Periodic qualitative interviews could then provide the depth necessary to understand why particular patterns appear in the survey data.

Over time, this approach would allow Habitat to move beyond documenting satisfaction at a single point after project completion and toward evaluating whether repairs remain functional, whether residents continue to experience the intended benefits, and what additional needs emerge as homeowners continue to age in place.

### Study Limitations

Several limitations should be considered when interpreting the findings of this project. First, the study reflects the experiences of a relatively small group of Habitat AIP clients and should not be interpreted as statistically representative of all older homeowners in

Memphis and Shelby County or of all individuals who have participated in the AIP program. The qualitative interviews were designed to provide depth of understanding rather than population-level estimates.

Second, much of the information about conditions before repair was collected retrospectively. Participants were therefore asked to recall housing conditions, difficulties, and experiences that occurred before the research team became involved. The absence of a standardized pre-repair baseline limits the ability to directly measure individual-level change over time and is one reason this report recommends adding a baseline survey to future program evaluation.

Third, participants received different types of repairs at different points between 2024 and 2026. Differences in repair type, length of time since project completion, individual health and mobility, housing condition, and neighborhood context may influence participants' perceptions of program outcomes. The study was not designed to isolate the independent effect of any single repair or modification.

Fourth, the GIS Vulnerability Gap measure represents selected dimensions of aging-in-place need rather than a comprehensive measure of vulnerability. The index used poverty and disability indicators together with observed repair activity. Other potentially important characteristics were not fully captured in the composite measure. These conditions include (but are not limited to) housing condition, age of housing stock, transportation access, social isolation, healthcare access, and other neighborhood conditions. The GIS findings should therefore be interpreted as a tool for identifying patterns and potential areas for further investigation rather than as a definitive ranking of neighborhood need.

Finally, the project was conducted within the timeline of a fellowship and community partnership. A longer-term evaluation design would make it possible to assess participants before repairs, shortly after project completion, and again after sufficient time has passed to evaluate durability, changing accessibility needs, and longer-term outcomes. The longitudinal evaluation framework proposed in this report is intended to address several of these limitations in future program assessment.

## Conclusion

Overall, aging in place is about more than remaining in a particular house. For the homeowners who participated in this study, home was closely connected to independence, family continuity, memory, identity, financial security, and community belonging. Participants' experiences also demonstrate that the ability to remain at home depends on more than personal preference. Housing conditions, accessibility, financial resources, neighborhood environments, social relationships, and access to assistance all shape whether aging in place remains safe and sustainable over time.

Habitat for Humanity of Greater Memphis's Aging in Place program addresses an important part of this larger picture. Participants frequently described repairs and accessibility modifications as improving their experiences of safety, comfort, mobility, and independence while helping them remain in homes to which they had deep personal and family ties. At the same time, the findings show that completing a repair does not necessarily eliminate all housing-related needs. Older homeowners may continue to face changing accessibility needs, aging housing stock, financial

constraints, neighborhood challenges, or repairs that fall outside the scope of a particular project.

The study also highlights the broader social significance of supporting older adults in their homes. Participants were not only recipients of assistance. Many provided housing, caregiving, emotional support, information, and stability to children, grandchildren, neighbors, and community organizations. Helping an older homeowner remain safely at home may therefore have implications that extend beyond the individual household.

The recommendations in this report are intended to strengthen an already valuable program by improving communication, geographic outreach, quality assurance, referrals, and long-term evaluation. A longitudinal approach that follows homeowners before and after repairs would also allow Habitat to better understand how benefits change over time and where additional needs emerge. Together, these strategies can help strengthen the Aging in Place program's capacity to support older homeowners while generating clearer evidence about the long-term role of home repair in promoting housing stability, independence, family continuity, and community connection.

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## Appendix

### Original AIP Follow-Up Survey Questions and Response Distributions

This appendix presents the Aging in Place follow-up survey questions administered during the 2026 project together with the corresponding response distributions. Question wording has been retained to document the original survey instrument. As discussed in the *Evaluation and Recommendations for AIP Follow-Up Surveys* section of this report, several items were identified as potentially ambiguous, difficult for participants to interpret, or phrased in ways that may encourage particular responses.

A total of 37 AIP clients completed the phone survey ( $N = 37$ ). The number of valid responses varies across individual items because some respondents did not answer particular questions, some items were not applicable to all participants, and some questions permitted multiple responses. The item-specific  $n$  reported beneath each table reflects the number of valid responses included in that item's distribution. For questions permitting multiple responses, percentages may sum to more than 100%. Percentages may also vary slightly from 100% because of rounding.

#### Q1. What repairs did you receive from Habitat for Humanity?

(Select all that apply.)

| Response Option                                 | Count | Percentage |
|-------------------------------------------------|-------|------------|
| Exterior repairs (roof, windows)                | 29    | 78%        |
| Interior repairs (floors, ceilings)             | 3     | 8%         |
| Exterior accessibility (ramps, rails)           | 5     | 14%        |
| Interior accessibility (grab bars, high toilet) | 7     | 19%        |
| Electrical                                      | 1     | 3%         |
| Plumbing                                        | 2     | 5%         |
| Air systems (AC or heating)                     | 1     | 3%         |
| Can't remember                                  | 0     | 0%         |
| Other                                           | 16    | 43%        |

( $n = 37$ ; multiple responses permitted)

**Q1, Other:** Open-ended qualitative responses were collected but are not reproduced in this appendix.

## Q2. How long have you lived in your home?

| Response Option  | Count | Percentage |
|------------------|-------|------------|
| 10 years or less | 2     | 5%         |
| 11–20 years      | 6     | 16%        |
| 21–30 years      | 11    | 30%        |
| 31–40 years      | 4     | 11%        |
| 41+ years        | 14    | 38%        |
| Missing cases    | 0     | 0%         |

(n = 37)

## Q3a. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Exterior repairs (roof, windows)

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 5     | 13.51%     |
| 1–5 years                             | 18    | 48.64%     |
| 6–10 years                            | 5     | 13.51%     |
| 10+ years                             | 3     | 8.10%      |
| Does not apply to me                  | 2     | 5.40%      |
| Missing cases (likely not applicable) | 4     | 10.81%     |

(n = 37)

**Note.** During survey administration, respondents expressed considerable confusion about this item. The quantitative analysis identified possible rewording and the use of a pre-/post-repair design as potential improvements.

## Q3b. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Interior repairs (floors, ceilings)

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 1     | 2.70%      |
| 1–5 years                             | 0     | 0%         |
| 6–10 years                            | 0     | 0%         |
| 10+ years                             | 1     | 2.70%      |
| Does not apply to me                  | 3     | 8.10%      |
| Missing cases (likely not applicable) | 32    | 86.48%     |

(n = 37)

**Note.** The large number of missing responses for Q3b–Q3g likely reflects cases in which respondents did not receive the repair type in question. A survey skip pattern would provide a clearer approach in future administrations.

**Q3c. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Exterior accessibility (ramps, rails)**

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 2     | 5.40%      |
| 1–5 years                             | 4     | 10.81%     |
| 6–10 years                            | 0     | 0%         |
| 10+ years                             | 0     | 0%         |
| Does not apply to me                  | 2     | 5.40%      |
| Missing cases (likely not applicable) | 29    | 78.37%     |

(n = 37)

**Q3d. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Interior accessibility (grab bars, high toilet)**

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 2     | 5.40%      |
| 1–5 years                             | 2     | 5.40%      |
| 6–10 years                            | 0     | 0%         |
| 10+ years                             | 1     | 2.70%      |
| Does not apply to me                  | 2     | 5.40%      |
| Missing cases (likely not applicable) | 30    | 81.08%     |

(n = 37)

**Q3e. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Electrical**

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 0     | 0%         |
| 1–5 years                             | 1     | 2.70%      |
| 6–10 years                            | 0     | 0%         |
| 10+ years                             | 0     | 0%         |
| Does not apply to me                  | 2     | 5.40%      |
| Missing cases (likely not applicable) | 34    | 91.89%     |

(n = 37)

**Q3f. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Plumbing**

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 0     | 0%         |
| 1–5 years                             | 1     | 2.70%      |
| 6–10 years                            | 0     | 0%         |
| 10+ years                             | 1     | 2.70%      |
| Does not apply to me                  | 2     | 5.40%      |
| Missing cases (likely not applicable) | 33    | 89.18%     |

(n = 37)

**Q3g. Prior to getting help from Habitat, how long had you waited for the following repairs that apply to you? — Air systems (AC or heating system)**

| Response Option                       | Count | Percentage |
|---------------------------------------|-------|------------|
| Less than 1 year                      | 1     | 2.70%      |
| 1–5 years                             | 1     | 2.70%      |
| 6–10 years                            | 0     | 0%         |
| 10+ years                             | 0     | 0%         |
| Does not apply to me                  | 2     | 5.40%      |
| Missing cases (likely not applicable) | 33    | 89.18%     |

(n = 37)

**Q4. How were the problems in your home causing you trouble?**

| Response Option            | Count | Percentage |
|----------------------------|-------|------------|
| Water damage               | 34    | 94.44%     |
| Air leaking in and out     | 11    | 30.55%     |
| High cost to get repaired  | 15    | 41.66%     |
| High cost in utilities     | 9     | 25.00%     |
| Inoperable                 | 12    | 33.33%     |
| Made me & others sick      | 4     | 11.11%     |
| Pests, mold, or bad smells | 7     | 19.44%     |
| It was unsafe              | 5     | 13.88%     |

(n = 36; multiple responses permitted)

**Q5. Now that you've received repairs, how have the following things improved?**

| Response Option                | Count | Percentage |
|--------------------------------|-------|------------|
| No water/rain leaks            | 24    | 66.66%     |
| No air leaks                   | 9     | 25.00%     |
| Utility savings                | 10    | 27.77%     |
| Operable                       | 14    | 38.88%     |
| No pests                       | 5     | 13.88%     |
| No mold, mildew, or bad smells | 13    | 36.11%     |
| Improved safety                | 6     | 16.66%     |

*(n = 36; multiple responses permitted)*

**Q6. Has the program made a positive impact on your life?**

| Response Option | Count | Percentage |
|-----------------|-------|------------|
| Yes             | 33    | 89%        |
| No              | 4     | 11%        |
| Missing cases   | 0     | 0%         |

*(n = 37)*

**Q7. Please evaluate the following statements.**

**7a. "I am safer in my home."**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 10    | 27.77%     |
| Agree             | 21    | 58.33%     |
| Neither           | 3     | 8.33%      |
| Disagree          | 1     | 2.77%      |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 1     | 2.77%      |

*(n = 36)*

**7b. “I am healthier in my home.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 8     | 25.80%     |
| Agree             | 21    | 67.74%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 2     | 6.45%      |

(n = 31)

**7c. “My home is safer for visitors.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 11    | 35.48%     |
| Agree             | 18    | 58.06%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 2     | 6.45%      |

(n = 31)

**7d. “My home is healthier for visitors.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 11    | 35.48%     |
| Agree             | 18    | 58.06%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 2     | 6.45%      |

(n = 31)

**7e. “I can remain in my home longer as I age.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 11    | 35.48%     |
| Agree             | 18    | 58.06%     |
| Neither           | 1     | 3.22%      |
| Disagree          | 1     | 3.22%      |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 0     | 0%         |

(n = 31)

**7f. “I am satisfied with the quality of work.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 13    | 41.93%     |
| Agree             | 15    | 48.38%     |
| Neither           | 1     | 3.22%      |
| Disagree          | 1     | 3.22%      |
| Strongly Disagree | 1     | 3.22%      |
| Doesn't apply     | 0     | 0%         |

(n = 31)

**7g. “I was treated with respect by the Habitat team.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 20    | 64.52%     |
| Agree             | 11    | 35.48%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 0     | 0%         |

(n = 31)

**7h. “I was treated with respect by the contractors.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 14    | 45.16%     |
| Agree             | 15    | 48.38%     |
| Neither           | 0     | 0%         |
| Disagree          | 2     | 6.45%      |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 0     | 0%         |

(n = 31)

**7i. “I am more proud of my home.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 13    | 41.93%     |
| Agree             | 18    | 58.07%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 0     | 0%         |

(n = 31)

**7j. “I would recommend this program to other seniors like me.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 15    | 50.00%     |
| Agree             | 15    | 50.00%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 0     | 0%         |

(n = 30)

**7k. “I believe this community is a good community for me.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 12    | 40.00%     |
| Agree             | 18    | 60.00%     |
| Neither           | 0     | 0%         |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 0     | 0%         |

(n = 30)

**7l. “I have more visitors/socialize more since my repairs.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 5     | 17.24%     |
| Agree             | 12    | 41.38%     |
| Neither           | 7     | 24.14%     |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 5     | 17.24%     |

(n = 29)

**7m. “I am less likely to fall inside my home.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 2     | 6.67%      |
| Agree             | 16    | 53.33%     |
| Neither           | 2     | 6.67%      |
| Disagree          | 5     | 16.67%     |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 5     | 16.67%     |

(n = 30)

**7n. “I am less likely to fall outside my home.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 0     | 0%         |
| Agree             | 16    | 53.33%     |
| Neither           | 3     | 10.00%     |
| Disagree          | 3     | 10.00%     |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 8     | 26.67%     |

(n = 30)

**7o. “I can stay in my community longer.”**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 6     | 20.00%     |
| Agree             | 21    | 70.00%     |
| Neither           | 2     | 6.67%      |
| Disagree          | 0     | 0%         |
| Strongly Disagree | 0     | 0%         |
| Doesn't apply     | 1     | 3.33%      |

(n = 30)

**Q8. Do you think that the program has improved conditions around your home in a way that your health could be better than it was?**

| Response Option   | Count | Percentage |
|-------------------|-------|------------|
| Strongly Agree    | 9     | 26%        |
| Agree             | 21    | 60%        |
| Neither           | 2     | 6%         |
| Disagree          | 2     | 6%         |
| Strongly Disagree | 1     | 3%         |

(n = 35)

**Q9. Have you noticed any changes in your utility bills since the repairs?**

| Response Option                 | Count | Percentage |
|---------------------------------|-------|------------|
| Yes, they are less expensive    | 11    | 30.56%     |
| Yes, they are more expensive    | 1     | 2.78%      |
| No, they have remained the same | 13    | 36.11%     |
| Unsure                          | 9     | 25.00%     |
| Missing cases                   | 2     | 5.56%      |

(n = 36)

*\*Editor's Note: The original quantitative table contained an internal inconsistency for the "more expensive" response. The distribution shown here uses the reported percentage and item denominator to reconcile the response count.*

**Q10. On average, how much has your utility bill changed each month?**

| Response Option      | Count | Percentage |
|----------------------|-------|------------|
| Less than \$20       | 3     | 9.38%      |
| \$21–40              | 2     | 6.25%      |
| \$41–60              | 1     | 3.13%      |
| \$61–80              | 3     | 9.38%      |
| \$81–100             | 2     | 6.25%      |
| More than \$100      | 2     | 6.25%      |
| Does not apply to me | 19    | 59.38%     |

(n = 32)

**Q11. Qualitative question about the importance of utility bill affordability**

Open-ended qualitative responses were collected but are not reproduced in this appendix.

**Q12. If you had not received help from Habitat, where do you believe you would have received help for your repairs?**

| Response Option                                                            | Count | Percentage |
|----------------------------------------------------------------------------|-------|------------|
| I would have paid someone to do the repairs                                | 2     | 6%         |
| My church would have helped me                                             | 0     | 0%         |
| My family would have helped me                                             | 4     | 11%        |
| I would have relied on another agency                                      | 14    | 39%        |
| I would not have addressed repairs because I didn't have any other options | 13    | 36%        |
| Other sources of help                                                      | 11    | 31%        |

*Multiple responses were permitted; percentages therefore exceed 100%.*

**Q13. If you had not received help from Habitat, do you think that you would have to move out of your home earlier than what you wanted because the house would become “too bad”?**

| Response Option                   | Count | Percentage |
|-----------------------------------|-------|------------|
| Yes, but I would not want to move | 4     | 11%        |
| Yes, but I would want to move     | 6     | 17%        |
| No                                | 22    | 61%        |
| Unsure                            | 4     | 11%        |

(*n* = 36)

**Q14. When do you believe you would eventually move out of your home if it had gotten “too bad”?**

| Response Option         | Very Likely | Likely | Unsure | Unlikely | Very Unlikely | Valid <i>n</i> |
|-------------------------|-------------|--------|--------|----------|---------------|----------------|
| Immediately to one year | 6           | 2      | 2      | 3        | 13            | 26             |
| 2–5 years from now      | 0           | 4      | 1      | 2        | 13            | 20             |
| 6–10 years from now     | 0           | 2      | 1      | 2        | 12            | 17             |
| 10+ years from now      | 1           | 2      | 1      | 2        | 12            | 18             |

**Note.** Valid response counts vary across the individual Q14 time-horizon items because of item nonresponse. The valid *n* values shown above are the sums of the recorded response counts for each row.

**Q15. If you had to move as you age or your home aged, where do you think you would move?**

| Response Option                                 | Count | Percentage |
|-------------------------------------------------|-------|------------|
| Nursing home (intense medical care and support) | 0     | 0%         |
| Assisted living (independent living)            | 3     | 9%         |
| With family                                     | 8     | 25%        |
| Into another house or apartment                 | 5     | 16%        |
| Lower-income senior housing                     | 1     | 3%         |
| I have no other place to go                     | 11    | 34%        |
| Other                                           | 4     | 13%        |

(*n* = 32)

#### **Q16. Qualitative response**

Open-ended qualitative responses were collected but are not reproduced in this appendix.

**Q17. Interest in a follow-up in-person interview**

Responses are not reported here because this question was used for recruitment for the qualitative interview component rather than as a program-evaluation measure.