Impact Measurement Pilot Report

2019 - 2020
# Table of Contents

Executive Summary .......................................................................................................................... 3  
Introduction ...................................................................................................................................... 9  
Areas of Impact ................................................................................................................................. 10  
  Logic Model and Impact Areas ..................................................................................................... 10  
Pilot Participants: Affiliates ............................................................................................................ 11  
  Baltimore ...................................................................................................................................... 12  
  San Francisco ................................................................................................................................. 14  
  Seattle .......................................................................................................................................... 15  
  Southeast Michigan ...................................................................................................................... 16  
  Southern Nevada .......................................................................................................................... 17  
Affiliate Repairs by Project Type ..................................................................................................... 19  
Data Gathering and Analysis Methods ............................................................................................. 19  
  Applications ................................................................................................................................. 19  
  Healthy Housing Checklist .......................................................................................................... 19  
    Healthy Housing Checklist Data ............................................................................................... 20  
  Impact Measurement Survey ....................................................................................................... 20  
    Impact Measurement Survey Response Rates ......................................................................... 21  
  Data Analysis ............................................................................................................................... 21  
Pilot Affiliates’ Demographics of Individuals Served ................................................................... 23  
  Income Level ............................................................................................................................... 23  
  Age Range ................................................................................................................................. 24  
  Race and Ethnicity ..................................................................................................................... 25  
  Other Characteristics .................................................................................................................. 25  
Program Evaluation Results by Area of Impact .......................................................................... 26  
  Safety .......................................................................................................................................... 26  
  Physical Health .......................................................................................................................... 29  
  Mental Health ............................................................................................................................. 34  
  Independence .............................................................................................................................. 37  
  Economic Security ....................................................................................................................... 39  
  Community Benefits ................................................................................................................... 41  
Conclusions ....................................................................................................................................... 42
Rebuilding Together has made a long-term commitment to collect key outcomes about the impact of our services on the lives and communities we serve. Through our network of affiliates, we are poised to strengthen our measurement and evaluation practices through long-term investment in impact measurement, which is crucial for our ability to:

- Build consensus around the purpose and intended outcomes of our core business
- Understand our impact and improve our storytelling through data and evidence
- Demonstrate our credibility and value to existing and potential donors
- Promote an organizational culture of learning and continuous improvement

**Participating Affiliates**

- Rebuilding Together Seattle
- Rebuilding Together San Francisco
- Rebuilding Together Southern Nevada
- Rebuilding Together Southeast Michigan
- Rebuilding Together Baltimore

**Our Methods**

In 2019, Rebuilding Together partnered with the external evaluator Actionable Insights to conduct impact measurement based on the desired outcomes of our core practice model, Safe and Healthy Housing. Together, affiliates surveyed 98 residents.

**Healthy Housing Checklist**

Affiliates use a checklist of 25 safe and healthy housing principles to assess homes before they repair them. Once repairs are complete, affiliates fill out the checklist again (post-repairs). Actionable Insights analyzed the changes by comparing the checklists pre-repairs and post-repairs for each client. Data on the following pages includes data from the Healthy Housing Checklist analysis.

**Homeowner Impact Survey**

To measure impact on homeowners themselves, Rebuilding Together affiliates surveyed the clients they served in a five-month period. The survey asked about changes they may have experienced since repairs were made. Every client received a paper survey (with self-addressed stamped envelope). Affiliates followed up with customers by phone if they received significant repairs and surveyed those clients by phone.
Rebuilding Together creates a logic model to clarify the desired outcomes of the organization. The outcomes from the logic model can be organized into the domains shown below. The impact survey was created to measure impact across these domains.

**Impact Domains & Indicators**

Rebuilding Together addresses 25 principles of safe and healthy housing. Comparisons of home assessments before and after repairs show the percent of homes in which these repairs addressed the principles. The checklist data from the home assessment (pre-repairs) was compared to the checklist data collected upon completion of the project (post-repairs).

**Falls Prevention Improvements**

After repairs, at least 8 in 10 homes had these home modifications. The percent improvements does not include homes which already had these fall-prevention modifications in place before Rebuilding Together's work.

“I can now shower and wash my hair and wash my body, which was dangerous to do before.”  
— Survey Respondent
Homeowners saw improvements in their health and wellbeing, as demonstrated by the findings from the pre/post survey presented below.

65% of clients whose health was not good before repairs report improved health

58% report bathing is easier
36% felt it was already easy

58% report feeling happier
34% were already happy

70% report low or no chance of falling

“It would've taken me years to get some of the repairs they did in my home and they are truly a blessing to me.” — Survey Respondent
Rebuilding Together has a vision of safe homes and communities for everyone. Year-round, it brings together partners from all walks of life to help their neighbors. Together with its corporate and community partners, it repairs homes, revitalizes communities, and rebuilds lives. Rebuilding Together’s local affiliates repair about 10,000 homes nationwide each year.
Conclusions

The work done by Rebuilding Together’s pilot affiliates achieved positive outcomes in all six domains:

**Safety**
The pilot affiliates’ work substantially reduced the risk of falls in low-income households by making toilet/tub modifications for greater accessibility and by installing strategically placed grab bars and handrails. Half of survey respondents who had experienced a fall or a close call in the six months before repairs rated their chances of falling after repairs as low or no chance.
The pilot affiliates also improved home security and fire and structural safety at the properties where work was performed. Repairs and modifications included installing or replacing fire extinguishers and smoke detectors in homes, enhancing window and door security, improving lighting, and reducing electrical hazards. Repairs made it possible for nearly 100% of residents to have safe ingress to and egress from their home in case of an emergency.

The vast majority of low-income homeowners who had trouble getting into and out of their homes prior to repairs reported easier ingress and egress afterward.

**Physical Health**
Nearly two thirds of low-income homeowners who reported that their health was less than good prior to repairs said that their health improved after the pilot affiliates completed their work. The improvements made by affiliates reduced dampness in homes (through stemming active leaks and providing watertight roofs) and lowered risks of inhaled contaminants (through the installation or replacement of carbon monoxide detectors and making sure interior wall coverings were intact); such measures can improve occupants’ respiratory health. In addition, more than half of survey respondents found bathing after repairs easier than before, which increases the potential for improved hygiene for homeowners and residents.

**Mental Health**
The pilot affiliates’ repairs led to self-reported stress reduction around home repairs and maintenance among the majority of surveyed low-income homeowners, especially among those who were the most frequently stressed. Most low-income homeowners also reported the same or greater levels of happiness in their lives, as well as confidence in their ability to manage stress, after affiliates’ intervention. Additionally, increases in the ability for low-income homeowners to better control the interior temperature of their homes may be associated with improved mental health. Finally, the majority expressed feeling greater pride in their homes since the affiliates completed repairs.
Conclusions

Independence
Improvements made by the pilot affiliates increased the proportion of low-income homeowners surveyed who said they would be able to age in place, particularly among those with poor health. In addition, nearly a third said that they found cooking and preparing meals at home easier after the repairs were complete. For a small proportion, the repair or replacement of kitchen appliances contributed to homeowners' ability to cook and eat healthier food.

Economic Security
The pilot affiliates’ efforts increased the ability of low-income homeowners to pay for daily necessities, according to those who responded to the survey. In part, this may be the result of a reduction in utility and/or home maintenance costs, which was reported by more than one quarter of respondents. In addition, over three in five respondents felt their home was of greater value as a financial asset after the repairs than before; because nearly three quarters planned to pass along their property to a relative or a friend, this plays a role in increasing intergenerational wealth transfer among the low-income population.

Community
Qualitative evidence suggests that low-income homeowners felt repairs completed by the pilot affiliates made a difference in their neighborhood or community. Additionally, more than one quarter of low-income homeowners felt an increased connection with their neighbors following the repairs.
Introduction

For almost 50 years, Rebuilding Together has strengthened our communities by providing critical home repairs to our neighbors in need across the country. Through a network of local affiliates, volunteers, and community and corporate partners, Rebuilding Together provides home modifications and repairs at no cost to recipients who are unable to pay for the maintenance themselves. Safe and healthy housing is the foundation of Rebuilding Together’s home repair and modification work, targeting significant safety and health hazards based on eight principles of healthy homes—keep it dry, clean, pest-free, safe, contaminant-free, well-ventilated, maintained, and thermally controlled.

Through its Safe at Home program, Rebuilding Together provides home modifications to older adults, veterans, and people with mobility issues to improve accessibility, reduce falls, increase independence, and facilitate aging in place. Rebuilding Together’s safe and healthy homes approach can also benefit families with young children, providing them with a safe place to live, free of mold and other toxins.

The organization’s other programs include She Builds, a women-led initiative to empower women to maintain safe and healthy homes, make a difference in their community, and build a supportive community network through home maintenance training and support. Through its Disaster Readiness and Recovery program, Rebuilding Together increasingly prepares communities to face natural disasters and supports local residents with long-term rebuilding efforts when disasters strike. The organization not only benefits neighbors in need but also local community and non-profit spaces. Through Rebuilding Together’s Building a Healthy Neighborhood program, local affiliates partner with neighbors, volunteers, community leaders, and local organizations to revitalize neighborhoods with safe, affordable, accessible homes and thriving community spaces, including green spaces, shelters, and classrooms. All Rebuilding Together programs work towards the organization’s vision of a safe home and community for everyone.

Measuring the impact of its repair work on low-income homeowners is critical to the success of the organization’s mission. Impact measurement is an intentional way to measure the extent to which a program or intervention has achieved its intended outcomes — changes that occur in the lives of individuals, families, organizations, and/or the community. Evidence of outcomes can be collected using indicators (specific, measurable data) that are gathered before, during, and/or after the intervention to help document whether specific outcomes have occurred.¹ Rebuilding Together has made a long-term commitment to collect evidence of key outcomes of the impact of its services on the lives and communities it serves.

To strengthen its impact measurement process, Rebuilding Together engaged a professional research and evaluation firm to support a pilot impact measurement project in 2018–2019 with the national office and select local affiliates.

The goals of the pilot impact measurement project were:

- Build consensus between the national office and local affiliates around the purpose and intended outcomes of Rebuilding Together’s core business: safe and healthy housing initiatives.
- Improve the collective understanding of Rebuilding Together’s impact on the residents and communities it serves.
- Strengthen Rebuilding Together’s storytelling ability by collecting evidence about its work’s impact.

• Demonstrate Rebuilding Together’s credibility and value to existing and potential donors.
• Promote an organizational culture of learning and continuous improvement throughout Rebuilding Together’s network.

Ultimately, the pilot project was designed to build and strengthen Rebuilding Together’s evaluation capacity at the national and local levels. By establishing sustainable processes, the pilot project will help the organization and its affiliates continue to measure the outcomes of their work, year over year.

The project began in late 2018. Rebuilding Together called for applications from its local affiliates to participate in the pilot project. Sixteen affiliates applied; seven were chosen. Selections were made to represent the greatest diversity possible. Considerations included affiliate size (number of projects per year), market (urban, suburban, or rural), and geographic location (Pacific Northwest, West Coast, Southwest, Midwest, East Coast).

In the first quarter of 2019, Rebuilding Together called for proposals and selected Actionable Insights, LLC, as its external evaluator. Actionable Insights is a women-owned, professional research firm in Northern California that had previously worked with Rebuilding Together Peninsula to build the Redwood City-based affiliate’s evaluation capacity. Actionable Insights also has extensive experience with strategy development, individual grantee evaluation assistance, and leading large coalitions of nonprofit hospitals in community health needs assessments.

Rebuilding Together and the pilot affiliates worked with Actionable Insights over the course of 2019–2020 to develop a logic model, an evaluation plan, and a survey tool, and then to conduct the pilot evaluation. All of these activities are described in this report.

The pilot impact evaluation project would not have succeeded without the dedicated efforts of affiliate leaders, AmeriCorps members and volunteers, and the homeowners who participated in the evaluation research – thank you for your contributions. Thank you to Rebuilding Together Peninsula for their preliminary impact measurement work that inspired this pilot, and thank you to the Rebuilding Together national office whose financial support made this pilot project possible.

Areas of Impact

LOGIC MODEL AND IMPACT AREAS

In 2019, Rebuilding Together began a pilot effort with seven local affiliates to collect evidence of its impact on low-income homeowners and the communities in which they live. Rebuilding Together’s national office engaged Actionable Insights, LLC, to guide it through this process.

Over the course of several months, Actionable Insights led national Rebuilding Together staff in drafting a logic model which articulated its desired outcomes. Actionable Insights then reviewed the draft with the pilot affiliates, collected their feedback, and incorporated it into a final logic model.

The logic model, a keystone of professional evaluation practice, is rooted in research, mapping an organization’s activities, outputs, and outcomes. Based on Rebuilding Together’s logic model, Actionable Insights developed a visual diagram (Figure 1) of the outcome domains the organization and its affiliates wish to achieve in the short- and long-term.

The logic model outcomes were organized into six areas of impact:
The logic model served as the basis for the pilot impact evaluation project. Both the logic model and the evaluation plan are dynamic “living” documents set up to change with the organization’s goals and/or vision. In other words, Rebuilding Together can use its logic model on an ongoing basis to guide its program evaluation and data collection and to support continuous program improvement.

Pilot Participants: Affiliates

In 2018, Rebuilding Together called for affiliates to participate in an impact evaluation pilot initiative. Sixteen affiliates applied; seven were chosen:

- Baltimore
- Of the Triangle* (North Carolina)
- Pittsburgh*
- San Francisco
- Seattle
- Southeast Michigan
- Southern Nevada

* Of the Triangle and Pittsburgh withdrew prior to the start of data collection.
Selections were made to represent the greatest diversity possible. Considerations included affiliate size (number of projects per year), market (urban, suburban, or rural), and geographic location (Pacific Northwest, West Coast, Southwest, Midwest, East Coast).

Affiliates in Baltimore, San Francisco, Seattle, Southeast Michigan and Southern Nevada participated in the Rebuilding Together pilot impact evaluation project. Their service areas and initiatives are summarized in this section, along with the repairs each completed during the pilot impact measurement survey timeframe (March 1–July 31, 2019).

**Baltimore**

Rebuilding Together Baltimore serves both the City of Baltimore and Baltimore County, Maryland. In 2019, its target city neighborhood was Wilson Park, but Rebuilding Together Baltimore also served low-income homeowners citywide through Baltimore’s Housing Upgrades to Benefit Seniors (HUBS) initiative. Its target county neighborhood was Dun Logan.

Rebuilding Together Baltimore provides four core initiatives:

1. **Rebuilding Day:** Since 1989, Rebuilding Together Baltimore has selected one county and one city neighborhood where it works on several homes and completes other community beautification projects, like picking up trash or sprucing up parks. Volunteers and contractors complete repairs on these houses. Unless Rebuilding Together Baltimore makes an exception, these homeowners earn below 50% of the Area Median Income.²
   
   a. **Spring Rebuilding Day:** Since 1990, Rebuilding Together Baltimore has partnered with community sponsors to offer repair services for approximately 10 low-income Baltimore County homeowners and community spaces each spring. Spring Rebuilding Day is supported locally by approximately 120 volunteers.
   
   b. **Fall Rebuilding Day:** Since 2017, Rebuilding Together Baltimore has partnered with community sponsors to offer repair services for approximately 10 Baltimore City low-income homeowners and community spaces each fall. Fall Rebuilding Day is supported locally by approximately 100 volunteers.

2. **Housing Upgrades to Benefit Seniors (HUBS):** Since 2018, Rebuilding Together Baltimore has partnered with the HUBS program to provide household repairs to approximately 25 low-income senior homeowners (age 65 and older) in the city of Baltimore each year. HUBS repairs are completed mostly by contractors. The average spending is $8,000 per house.

3. **Team Builds and Special Projects:** Since 2009, Rebuilding Together Baltimore has completed repair projects throughout the year with sponsoring community partners in an effort to engage local volunteers in team-building opportunities. Rebuilding Together Baltimore takes on approximately 10 Team Builds and a few special projects annually.

4. Within each of these initiatives, Rebuilding Together Baltimore has the following sub-initiatives:

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² For more information on Area Median Income, see the Demographics section starting on page 22.

b. Fire Safety/Prevention: Since 2013, Rebuilding Together Baltimore has ensured that each household it serves has smoke alarms, carbon monoxide detectors, and kitchen-grade fire extinguishers.

c. Safe at Home: Rebuilding Together Baltimore has installed home safety modifications since 1989.

Rebuilding Together Baltimore completed 15 home-repair projects (see map, Figure 2) during the pilot impact measurement survey timeframe.

Figure 2. Baltimore-Area Home Repairs, March 1–July 31, 2019

Rebuilding Together Baltimore mailed surveys to all 15 households, and telephone follow-ups were conducted with priority projects. A total of six households responded. For pilot impact measurement survey purposes, Rebuilding Together Baltimore defined priority projects as those for which:

- a volunteer day was held at the home, or
- $1,000 or more was spent on materials or contractor work.
SAN FRANCISCO

Rebuilding Together San Francisco serves the city and county of San Francisco.

Rebuilding Together San Francisco offers three core initiatives:

1. National Rebuilding Day: Since 1989, Rebuilding Together San Francisco has partnered with community sponsors to repair approximately 20 homes and 10 community facilities each year on the last Saturday of April. National Rebuilding Day is supported by the work of about 300 local volunteers.

2. Safe at Home: Since 1989, Rebuilding Together San Francisco has taken on small, safety-oriented home repair projects that can be completed at any time of the year. Rebuilding Together San Francisco currently serves approximately 300 low-income homeowners annually through this program with the support of staff, AmeriCorps members, and skilled volunteers.

3. Critical Repair Program: Over the past five years, with support from the Mayor’s Office of Housing and Community Development, Rebuilding Together San Francisco has funds available for home safety and accessibility repairs, including stair lift installations, bath and shower modifications, and plumbing and electrical improvements.

Rebuilding Together San Francisco completed 43 home-repair projects (see map, Figure 3) during the pilot impact measurement survey timeframe.

Figure 3. San Francisco–Area Home Repairs, March 1–July 31, 2019

Source: Rebuilding Together San Francisco’s application data, 2019.

Rebuilding Together San Francisco mailed surveys to 45 households, and telephone follow-ups were conducted with priority projects. A total of 21 households responded. For pilot impact measurement survey

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3 Two additional households were surveyed by Rebuilding Together San Francisco outside the survey timeframe.
purposes, Rebuilding Together San Francisco defined priority projects as those where $300 or more was spent on materials or labor for the project.

SEATTLE

Rebuilding Together Seattle serves the area from Everett to Renton, Washington, primarily along the Interstate 5 corridor. It also includes other parts of King County for special initiatives and partnerships.

Rebuilding Together Seattle provides three core initiatives:

1. National Rebuilding Month: Since 1990, Rebuilding Together Seattle has partnered with community sponsors to repair approximately 20 to 30 homes and community facilities each spring. National Rebuilding Month is supported locally by the work of more than 600 volunteers.

2. Team Builds and Special Initiatives: Since the early 2000s, Rebuilding Together Seattle has completed repair projects throughout the year with sponsoring community partners in an effort to engage local volunteers in team-building opportunities. Rebuilding Together Seattle takes on approximately 20 Team Builds and a few special projects annually.

3. Safe at Home: Since 2011, Rebuilding Together Seattle has taken on small, critical home-repair projects that can be completed at any time of the year. Rebuilding Together Seattle currently serves nearly 200 low-income households — the bulk of its clients — annually through this program with the support of staff, AmeriCorps members, in-kind partners, and volunteers.

Rebuilding Together Seattle completed 49 home-repair projects (see map, Figure 4) during the pilot impact measurement survey timeframe.

Figure 4. Seattle-Area Home Repairs, March 1–July 31, 2019
Surveys were mailed to all 49 households, and telephone follow-ups were conducted with priority projects. A total of 25 households responded. For pilot impact measurement survey purposes, Rebuilding Together Seattle defined priority projects as those which were:

- conducted through its National Rebuilding Month or Team Build initiatives, or
- completed through its Safe at Home initiative (outside its partnership with the King County Medic One/EMS Division).

**SOUTHEAST MICHIGAN**

Rebuilding Together Southeast Michigan serves Oakland County, Michigan, and City Council District 4 in Detroit.

Rebuilding Together Southeast Michigan offers three core initiatives:

1. **National Rebuilding Day:** Since 1992, Rebuilding Together Southeast Michigan has partnered with community sponsors to offer repair services for approximately 25 low-income homeowners each spring. National Rebuilding Day is supported locally by approximately 400 volunteers.

2. **Rebuild Day Projects:** Since 2015, Rebuilding Together Southeast Michigan has engaged in repair projects throughout the year with sponsoring community partners to engage local volunteers in team-building opportunities. Rebuilding Together Southeast Michigan takes on approximately 20 such projects annually.

3. **Minor Home Repair Program:** Since 2015, Rebuilding Together Southeast Michigan has provided homeowners with non-emergency repairs that can be completed by a team of three to four volunteers in less than four hours for under $500. When funded, the program handles approximately 40 repairs a year.

Rebuilding Together Southeast Michigan completed 24 home-repair projects (see map, Figure 5) during the pilot impact measurement survey timeframe.

*Figure 5. Southeast Michigan Homes Repaired, March 1-July 31, 2019*

Surveys were mailed to all 24 households, and telephone follow-ups were conducted with priority projects. A total of 16 households responded. For pilot impact measurement survey purposes, Rebuilding Together Southeast Michigan defined priority projects as those for which:

- at least 10 volunteers were engaged, and/or
- at least $2,500 was spent on materials or labor for the project.

SOUTHERN NEVADA

Rebuilding Together Southern Nevada serves the southern area of the state, including Las Vegas, Henderson, North Las Vegas, and unincorporated Clark County.

Rebuilding Together Southern Nevada provides six core initiatives:

1. National Rebuilding Day: Since 1994, Rebuilding Together Southern Nevada has partnered with community sponsors to repair approximately 30 homes and community spaces in April. These days are locally supported by the work of approximately 800 volunteers.

2. Make a Difference Day: Since 2014, Rebuilding Together Southern Nevada has partnered with community sponsors to repair approximately 15 homes and community spaces in October. These days are locally supported by the work of approximately 450 volunteers.

3. Team Builds and Special Projects: Since 1994, Rebuilding Together Southern Nevada has completed repair projects throughout the year with sponsoring community partners in an effort to engage local volunteers in team-building opportunities. Rebuilding Together Southern Nevada takes on approximately two Team Builds and a few special projects annually. In fiscal year 2018–2019, Rebuilding Together Southern Nevada’s special project focus was revitalizing the Pittman neighborhood in Henderson.

4. Safe at Home: Since 2017, Rebuilding Together Southern Nevada has taken on small home-repair projects that can be completed at any time of the year. Rebuilding Together Southern Nevada currently serves approximately 35 low-income households through this program annually with the support of staff and skilled volunteers.

5. Critical Home Repairs: Since 1994, Rebuilding Together Southern Nevada has taken on critical home repair projects that can be completed year-round. This is its largest program. Rebuilding Together Southern Nevada currently serves approximately 130 low-income homeowners annually with the support of staff and contractors.

6. HOME Investment Partnerships Program: Since 2007, Rebuilding Together Southern Nevada has partnered with municipalities to provide top-to-bottom rehabilitations. Each home can receive up to $50,000 of renovations, depending on its condition. Rebuilding Together Southern Nevada currently serves approximately 10 low-income homeowners through this program each year with the support of staff and contractors.

Rebuilding Together Southern Nevada completed 66 home-repair projects (see map, Figure 6) during the pilot impact measurement survey timeframe.
Surveys were mailed to all 66 households, and telephone follow-ups were conducted with priority projects. A total of 30 households responded. For pilot impact measurement survey purposes, Rebuilding Together Southern Nevada defined priority projects as those which:

- were part of the Critical Home Repair initiative, and
- involved at least $500 of materials and/or labor.
Affiliate Repairs by Project Type

Safe at Home and similar projects, including Housing Upgrades to Benefit Seniors, accounted for over one third (35%) of the Rebuilding Together projects completed during the pilot impact measurement period (Figure 7). Another 52% were divided about evenly among National Rebuilding Day and Critical Home Repairs. Team-Build events and other projects, such as Building a Healthy Neighborhood, made up the rest.

Figure 7. Number of Pilot Projects by Affiliate Project Type

Source: Pilot affiliates, 2019 (N=197).

Data Gathering and Analysis Methods

The pilot impact measurement project was designed to determine the impact of Rebuilding Together affiliates’ services on the individuals and communities they serve. The data-collection tools and methods are described in this section.

APPLICATIONS

Rebuilding Together affiliates collect demographic data on low-income homeowners through program applications. These demographics are stored in a Salesforce database or an Excel spreadsheet, depending on the affiliate, and aggregated for reporting. Demographics presented in this report are based on application data.

HEALTHY HOUSING CHECKLIST

The Healthy Housing Checklist is based on Rebuilding Together’s strategic approach of Safe and Healthy Housing: home repair and modification work targets significant safety and health hazards based on the eight principles of healthy homes—keep it dry, clean, pest-free, safe, contaminant-free, well-ventilated, maintained and thermally controlled. The checklist is a tool used by Rebuilding Together affiliates to ensure that every property meets these healthy housing standards. Affiliate staff fill out the checklist as part of an initial home assessment, marking each item “pass,” “fail,” or (in cases where their database is set up to accept it) “N/A” in order to determine needed repairs. The data recorded are entered into the Salesforce database.

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4 See Appendix E as well as the following URL for the Rebuilding Together Healthy Housing Checklist: https://rebuildingtogether.org/sites/default/files/PDF/Safe_Healthy_Housing/SafeandHealthyPriorities_Checklist_logo.pdf
database or an Excel spreadsheet. Following the project, staff complete the checklist again. Actionable Insights used these data to understand which healthy housing items had improved (i.e., changed from “fail” to “pass”).

Healthy Housing Checklist Data
In the summer of 2019, pilot affiliates were asked to provide a sample of Healthy Housing Checklist (HHC) data. These data represented projects that closed in 2018 and 2019. Counts of projects with checklist data, by affiliate, are shown in Figure 8. For a summary of HHC data, see Appendix A.

Figure 8. Number of Completed Projects with Healthy Housing Checklist Data, by Affiliate

![Bar chart showing the number of completed projects with HHC data for various affiliates.]


IMPACT MEASUREMENT SURVEY
A retrospective pre- and post-impact survey to determine the effect of household repairs on low-income homeowners was developed based on the logic model and evaluation plan. Actionable Insights used the 2015 Rebuilding Together AmeriCorps survey by McMahon Consulting Group, LLC, as the basis of its survey design. After gathering feedback from Rebuilding Together staff and representatives of pilot affiliates, and piloting the survey with older adults, Actionable Insights streamlined the survey to reduce the level of effort required to administer it and keep annual evaluation feasible. (See Appendix E for survey instrument.) Actionable Insights recommended a hybrid approach (an initial mailing followed by telephone surveys for non-respondents) and trained pilot project affiliate staff and AmeriCorps members on survey administration methods.

Surveys were assigned unique ID numbers corresponding to the Site IDs affiliates used for their projects. At regular intervals between September 2019 and January 2020, pilot affiliates identified all low-income homeowners who had received repairs from their affiliate five to six months earlier and sent each of them the impact survey along with a self-addressed, stamped envelope and a letter explaining the survey process. Two to three weeks after sending the surveys, pilot affiliate staff and/or AmeriCorps members called homeowners who had not returned completed surveys by mail and whose projects were considered “priority.” Actionable Insights suggested criteria for what constituted a “priority” (e.g., a threshold level of

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5 For the pilot, Healthy Housing Checklist data were not intended to be matched with impact survey data; thus, the periods for the pilot checklist data vary (see Appendix B for more information). The evaluation of the first full year of impact data (2020–2021) will include matched checklist data.

6 In a few cases, surveys were sent to homeowners who had received repairs more than six months earlier. The aggregate data were analyzed both with and without these cases. There was no significant difference in impact results when removing these cases; thus, they remain in the data set for this pilot report.
volunteer hours or dollars invested), but each pilot affiliate ultimately decided what “priority” meant in its community.

Some homeowners contacted by phone chose to complete the written survey and mail it back, treating the call as a reminder. Others completed the survey by phone instead; these surveys took approximately 27 minutes each. Each pilot affiliate provided a financial incentive to all participants who completed the survey, whether by phone or by mail, typically $5 or $10 in cash or on a gift card to a supermarket or similar store.

Affiliate staff, volunteers, or AmeriCorps members entered survey data into a SurveyMonkey form. Actionable Insights downloaded and analyzed the survey data for this report.

Impact Measurement Survey Response Rates
Of the 197 households served by the five pilot affiliates during the pilot impact measurement timeframe, 98 (50%) responded to the pilot survey. Response rates from households by each pilot affiliate are shown in green in the bar chart (Figure 9).7 Approximately one fifth (21%) of all surveys were conducted by phone; the remainder returned by mail.8

Figure 9. Proportion of Survey Respondents to Completed Projects, by Affiliate


For a summary of pilot impact measurement survey data and associated demographics, see Appendix D.

DATA ANALYSIS

As described previously, the group of affiliates chosen for the pilot were a purposeful sample, selected to ensure variation in region of the country, size of affiliate, and type of area served (urban, suburban, rural). Pilot affiliates completed Healthy Housing Checklists for all the projects they conducted (see Appendix B for further information). Affiliates also sent impact measurement surveys to all the households they served in a given time period. The households responding to the impact survey were reflective of the households served by the national affiliate network in that the proportions of households with older adult residents (age 65+) and child residents (under age 18) were similar, gender representation of residents was similar, and the proportion of black residents was similar. On some demographics, households were less well-matched;

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7 See Appendix C for chart of just priority projects and priority project response rates.
8 Telephone administration ranged from 0% in San Francisco to 37% in Southern Nevada.
for example, the national network contains a larger proportion of extremely low-income homeowners than the set of households responding to the impact survey (see Appendix D for further details). (Actionable Insights was not able to conduct a full statistical comparison between the demographics of pilot affiliates’ households served and the demographics of Rebuilding Together’s entire affiliate network since there is limited demographic data available across the network.) Given this, the results described in this report may be considered reasonable examples of what a typical affiliate might see if they conducted similar evaluation work themselves.

Households with a resident with disabilities were more likely to respond than households without a resident with disabilities. Other demographic and project-related factors (including the number of days between the date the project closed and the date of the household’s survey) made no statistically significant difference in likelihood of responding. Going forward, Actionable Insights recommends that Rebuilding Together consider how affiliates might improve response rates from households without residents with disabilities.

Actionable Insights matched the demographics provided by each pilot affiliate with the retrospective pre- and post-impact survey. The Site ID was used as a unique identifier matching all of these data sets.

Actionable Insights used cross-tabs (tables that show the relationships between variables) to compare pre- and post-data from the Healthy Housing Checklist, resulting in percentage differences in the usability or accessibility of participant homes between the initial home inspection and repair completion. Actionable Insights employed both cross-tabs and paired T-tests (statistical tests that compare the averages of two samples—in this case, pre-survey responses compared to post-survey responses) to understand the improvements reported by homeowners on the impact survey.

While t-tests indicate whether change is statistically significant, they do not assess the effect size. Effect size measures the magnitude, or what might be thought of as the importance, of the pre-/post- change. Change between pre- and post- may be statistically significant but so small as to be of little practical effect. We calculated effect sizes using the Common Language, or “CL,” effect size statistic for correlated samples (e.g., paired pre-/post- scores), originally proposed by McGraw & Wong. CL is a proportion, which is the difference between mean (average) pre- and post- scores (“$M_{\text{diff}}$”) divided by the standard deviation of those difference scores (“$S_{\text{diff}}$”). This allows us to describe effect size using probability rather than standard deviation. So, for example, an effect size of 72% for the item “Ease of cooking” would mean there was a 72% probability that the average homeowner served by the pilot affiliates experienced greater ease of cooking after repairs compared to before.

Due to the timing of the pilot, the data from the checklist were not matched with the impact survey data. Checklist data are presented separately in each relevant section of this report. In the future, impact survey data and checklist data will be matched and analyzed together to achieve even greater understanding of Rebuilding Together affiliates’ impact.

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9 Sixty-five percent of respondents had an individual with disabilities living at home (SD 0.48), compared to 51% of non-respondents (SD 0.50). Analysis using logistic regression (p < .05) and ANOVA, F = 3.946, p = 0.048. 
12 Note that a 50% probability means the likelihood of improvement is no better than chance (50/50). Following Wuensch (see reference above), values of CL may be considered small but non-zero at >55%, moderate at >63%, large at >71%, very large at >83%, and extremely large at >91%.
Pilot Affiliates’ Demographics of Individuals Served

Together, Rebuilding Together pilot affiliates completed projects for 197 households between March 1 and July 31, 2019, the period covered by the pilot impact measurement project. Fifty percent of those households participated in the survey.  

INCOME LEVEL

Almost all households served by Rebuilding Together affiliates are low-income, as defined by the U.S. Department of Housing and Urban Development (HUD). HUD defines a household as low-, very low-, or extremely low-income based on the household’s number of occupants and how much money those occupants earn each year compared to the area’s median income.

Any household with an income of 80% or below its area’s median income is considered low-income. In 2019, the area median income for a two-person household in the pilot areas was between $55,800 (Clark County, Nevada) and $129,000 (San Francisco, California). The benchmarks across Rebuilding Together’s pilot affiliate communities are shown in Table 1.

Table 1. Area Median Income Categories for Pilot Affiliates

<table>
<thead>
<tr>
<th>Affiliate</th>
<th>Area</th>
<th>Two-Person Household Income, 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area Median Income (AMI)</td>
<td>Low-Income (80% of AMI)</td>
</tr>
<tr>
<td>Baltimore</td>
<td>Baltimore County</td>
<td>$80,800</td>
</tr>
<tr>
<td>San Francisco</td>
<td>San Francisco County</td>
<td>$129,000</td>
</tr>
<tr>
<td>Seattle</td>
<td>Seattle-Bellevue Metro</td>
<td>$88,600</td>
</tr>
<tr>
<td>Southeast Michigan</td>
<td>Oakland and Wayne Counties</td>
<td>$61,100</td>
</tr>
<tr>
<td>Southern Nevada</td>
<td>Clark County</td>
<td>$55,800</td>
</tr>
</tbody>
</table>


One third of the pilot households were extremely low-income (i.e., making no more than $16,910 in Southern Nevada to $38,700 in San Francisco), and more than 40% were very low-income (i.e., making no more than $27,900 in Southern Nevada to $64,500 in San Francisco). Figure 10 shows the distribution of pilot affiliates’ households served by household income category.

13 Two additional households were surveyed by Rebuilding Together San Francisco outside the survey timeframe and are not counted in the 197 households in this demographics section.


15 Pilot household median income is not available as data were provided by income category, not actual dollars.
AGE RANGE

The majority (76%) of all pilot homeowners\textsuperscript{16} are older adults, and 80% of households had at least one older adult resident. About one in seven households (14%) had at least one child living in the home. The chart below shows the distribution of pilot affiliates’ households served by homeowner age range.

\begin{figure}
\centering
\includegraphics[width=\textwidth]{Figure11.png}
\caption{Pilot Homeowner Age Range}
\end{figure}

\textsuperscript{16} In cases where the households served are renters (8%), the data for “homeowners” are for the head of household.
RACE AND ETHNICITY

Almost half (49%) of the residents\(^{17}\) served by the pilot affiliates were white. About one quarter (26%) were black, 13% were Asian or Pacific Islander, and 7% were Hispanic/Latinx. The rest were multiracial or of some other race (5%).

Figure 12. Pilot Households’ Residents’ Ethnicity Distribution

![Ethnicity Distribution Chart]

Source: Pilot affiliates’ application data, 2019 (N=160).

OTHER CHARACTERISTICS

More than one in four (25%) of pilot homeowners surveyed said they had a U.S. military veteran in residence. Over half (58%) of all respondents reported having a person with disabilities living in the household. More than two-thirds (70%) of respondents said a woman was the homeowner.

Figure 13. Veterans, Persons with Disabilities, and Women

- Veteran resides in home, 25%
- Individual with disabilities resides in home, 58%
- Female homeowner, 70%

Note: These categories may overlap (e.g., a household with a female homeowner may also include a veteran). Veteran, N=163. Individuals with disabilities, N=197. Gender, N=196.

Source: Pilot affiliates’ application data, 2019.

\(^{17}\) Based on the expectation of racial endogamy, in cases where only the homeowner’s race/ethnicity is reported, the other residents were assumed to be of the same race/ethnicity. See Rosenfeld, M. (2008). “Racial, Educational, and Religious Endogamy in the United States: A Comparative Historical Perspective.” Social Forces, 87(1):1-31. Retrieved from [https://web.stanford.edu/~mrosenfe/Rosenfeld_Endogamy_Comparative_Perspective.pdf](https://web.stanford.edu/~mrosenfe/Rosenfeld_Endogamy_Comparative_Perspective.pdf)
Program Evaluation Results by Area of Impact

SAFETY

Maintaining good physical health requires preventing injuries at home. Falling (including slipping and tripping) is the most common source of home injuries\(^{18}\), and a particular concern for Rebuilding Together affiliates: About 80% of the households in the pilot included at least one adult age 65 or older. Falls among older adults at home and nearby are common and costly: Over three million U.S. older adults needed medical treatment for falls in 2012, and close to 25,000 died from falling. U.S. medical costs from falls-related injuries and deaths totaled nearly $31 billion in 2015. Injuries from falls can reduce older adults’ independence, may require long-term care, and can even increase their risk of earlier death.\(^{19}\) Falls can be prevented, in part, by home modifications such as elevated toilets and improved lighting.\(^{20}\) Accessibility modifications such as stairway railings and bathroom grab bars have also been shown to reduce falls.\(^{21}\)

Rigorous research has found that interventions in which home hazards were modified reduced falling; one study found the number of falls reduced by 44% and the number of fallers by 22% among high-risk intervention recipients.\(^{22}\) Another study found a 26% reduction in the rate of falls-related injuries among people in households receiving home modification interventions.\(^{23}\) In other words, modifications such as those made by Rebuilding Together affiliates (see Figure 14) have been shown to reduce the number of people who fall and how many falls they have.

Reducing Hazards

Figure 14. Safety Modifications Made by Affiliates to Prevent Falls

<table>
<thead>
<tr>
<th>Modification</th>
<th>Before Repairs</th>
<th>After Repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tubs/toilets modified for accessibility</td>
<td>54%</td>
<td>84%</td>
</tr>
<tr>
<td>Grab bars</td>
<td>55%</td>
<td>83%</td>
</tr>
<tr>
<td>Handrails</td>
<td>61%</td>
<td>84%</td>
</tr>
<tr>
<td>Adequate lighting</td>
<td>59%</td>
<td>70%</td>
</tr>
<tr>
<td>Durable flooring</td>
<td>60%</td>
<td>64%</td>
</tr>
<tr>
<td>Free from tripping hazards</td>
<td>66%</td>
<td>73%</td>
</tr>
</tbody>
</table>


In particular, pilot affiliates provided a substantial number of tub and toilet modifications, installed grab bars in strategic places within homes, and installed handrails at stairs and steps. Based on the effect size metrics, there is a 74% probability that the average home served by pilot affiliates would have received a tub or toilet modification as part of affiliates’ repairs, a 73% probability of having received grab bars, and a 71% probability of having handrails installed.

Additional safety modifications made to some homes included lighting improvements, flooring replacement, and clearing away tripping hazards; the chances of these repairs being made to the average home were lower, but not insignificant (64% for lighting, 61% for tripping hazards, 59% for flooring).

“My house has five stairs to get into house. ... With hip problems not able to get in or out without pain. You put a ramp in. Now it is easier, thanks to you all.” –Survey respondent

Among survey respondents who felt it was not easy to get into and out of their home before repairs (35 of 88 respondents), 91% reported finding it easier after repairs. Among all respondents, a total of 43% said they found it easier to get into and out of their home after repairs were completed than before. None found it harder. The effect size metric indicates there is an 77% probability that the average homeowner served by pilot affiliates would report greater ease of ingress/egress after repairs were completed, compared to before.

Figure 15. Increased Ease of Ingress/Egress

<table>
<thead>
<tr>
<th>How easy was it/is it to get into and out of your home?</th>
<th>Already easy</th>
<th>Easier than before</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>57%</td>
<td>43%</td>
</tr>
</tbody>
</table>


Almost 45% of respondents fell or had a close call in the six months before repairs; after repairs were made, nearly 70% of all respondents felt they had a “low chance” or “no chance” of falling.

Figure 16. Reported Falls Before Repairs, and Likelihood of Falling After Repairs

<table>
<thead>
<tr>
<th>In the 6 months before repairs, did you have a fall on your property?</th>
<th>No fall</th>
<th>Close call(s)</th>
<th>Fell at least once</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>56%</td>
<td>23%</td>
<td>21%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In general, how would you rate your chances of falling on your property now?</th>
<th>No chance</th>
<th>Low chance</th>
<th>Moderate chance</th>
<th>High chance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>24%</td>
<td>45%</td>
<td>24%</td>
<td>6%</td>
</tr>
</tbody>
</table>


24 There was no statistically significant difference in post-repair ease of ingress/egress among households with residents with disabilities vs. households without residents with disabilities, controlling for pre-repair ease of ingress/egress.
Among just those who reported having had a fall or a “close call” (almost fell) in the six months prior to repairs (42 of 93 respondents\textsuperscript{25}), 50% rated their chances of falling after repairs as “low” or “no chance.” In a regression analysis, after controlling for a previous fall, households with older adults (unsurprisingly) rated their chance of falling after repairs nearly half a point higher (0.44) on the four-point scale than households without older adults; this difference was statistically significant (p < .05).

“I feel greatly relieved and happier about my home being cleaner and safer than it was before.” – Survey respondent

Increasing Fire Safety

Functioning smoke alarms have been shown in rigorous studies to reduce death rates of occupants by approximately 50%.\textsuperscript{26,27} Rebuilding Together desires its affiliates to reach 100% for alarms and extinguishers, recognizing other safety issues may be restricted by available resources and participant willingness to make changes.

Figure 17. Percentage of Households With Fire Safety Features, Before and After Repairs

Note: Not all affiliates measure safe ingress and egress.
Source: Pilot affiliates’ Healthy Housing Checklist data, 2018-2019 (ingress/egress, N=184; all others, N=350).

Pilot affiliates made repairs and modifications that considerably improved fire safety among the low-income homeowners they served. The percentage of homes with functioning fire extinguishers and smoke

\textsuperscript{25} Only 93 respondents answered both the pre- and post- questions for this item.
alarms significantly increased as the result of pilot affiliate improvements (Figure 17). Based on the effect size metric, there is a 73% probability that the average home served by pilot affiliates would have received a current fire extinguisher as part of affiliates' repairs, and a 70% probability of having a smoke detector installed.

Repairs also made it possible for nearly 100% of residents to have safe ingress to and egress from their home in case of an emergency. Additional modifications made to some homes increased safety from electrical fires and improved the ability of emergency responders to find the address; the chances of these modifications being made to the average home were lower, but not insignificant (66% for ingress/egress, 64% for electrical hazards, 62% for address numerals).

**Improving Home Security**

Windows, doors, and locks that are certified to meet specific standards to withstand home break-ins and similar crimes have been shown to reduce the rate of such crimes by at least a third.\(^28,29\) Rebuilding Together affiliates made repairs and modifications to the properties of low-income homeowners to increase home security, including ensuring that windows and doors can close and lock. Looking at the effect size metric, there is a 63% likelihood that the average home served by pilot affiliates would have received such modifications during repairs.

**Figure 18. Percentage of Households With Windows and Doors That Open, Close, and Lock, Before and After Repairs**


**PHYSICAL HEALTH**

Housing conditions have major implications for resident health and contribute to disparities in health status and health outcomes. Poor housing is associated with a wide range of adverse health conditions, including respiratory diseases such as asthma, cardiovascular diseases, injuries, infectious diseases, and poor mental health. Improving unsafe and substandard housing can reduce the risk of injury, prevent disease, reduce stress, increase quality of life, and reduce poverty.\(^30\)


A clean home which is dry, well-ventilated, and free of pests is important to good physical health.\textsuperscript{31,32,33} For example, a longitudinal study of home repair in the U.K.\textsuperscript{34} found that home improvements (e.g., secured and weatherproofed windows and doors, electrical upgrades, wall insulation) reduced hospital admissions for resident older adults (age 60+) by 39%.

Low-income homeowners rated the quality of their health before and after the Rebuilding Together pilot affiliates made repairs.\textsuperscript{35} Figure 19 shows the proportion of survey respondents reporting “very good,” “good,” “moderate,” “bad,” or “very bad” health. The effect size metric suggests there is a 71% probability that the average homeowner served by pilot affiliates would report improved health after repairs, compared to before.

**Figure 19. Reported Health Status Before and After Home Repairs**

| In general, how would you say your health was before the repairs? | 
| --- | --- | --- | --- | --- |
| Very bad | Bad | Moderate | Good | Very good |
| 8\% | 10\% | 32\% | 40\% | 11\% |

| In general, how would you say your health is now, after the repairs? | 
| --- | --- | --- | --- | --- |
| Very bad | Bad | Moderate | Good | Very good |
| 2\% | 20\% | 54\% | 22\% | 


The percentage of homeowners reporting “bad” or “very bad” health decreased from 18\% before repairs to 4\% after repairs. Among those who reported that their health was not “good” or “very good” before the repairs, 65\% said their health improved after the repairs (Figure 20).

**Figure 20. Change in Health After Repairs for Respondents with Moderate or Poor Health**


\textsuperscript{35} This survey item was modeled on the Centers for Disease Control and Prevention’s health status question in its annual Behavioral Health Risk Factor Surveillance System survey. See question C01.01 in https://www.cdc.gov/brfss/questionnaires/pdf-ques/2019-BRFSS-Questionnaire-508.pdf
There was no significant difference in post-repair health ratings by household demographics (e.g., disability, age, veteran status), controlling for pre-repair health ratings.

“There was no A/C, my wife was literally dying. Her [health] has gotten better and improved because of the repairs.”
—Survey Respondent

Improving Respiratory Health

Health researchers have found an association between respiratory illnesses such as asthma and homes that are damp. Moisture can promote cockroaches and other pests as well as dust mites, mold, and other allergens.³⁶

In a randomized controlled trial of asthma and mold abatement interventions such as Rebuilding Together’s efforts, over half (52%) of the participants in the treatment group experienced improved breathing six months after the intervention and none of the control group participants did. Also, 41% of the treatment group reported less of a need for medication use, compared with 17% of the control group.³⁷

Another study found that repairs similar to those performed by Rebuilding Together achieved significant results, both in reducing the number of days per month that asthmatic children experienced symptoms (by about 50%) and in lowering the proportion of individuals who experienced asthma attacks requiring emergency room or urgent-care visits and/or hospitalizations (from 33% in the control group to 4% in the treatment group).³⁶ Rebuilding Together affiliates made several types of repairs related to improved respiratory health, as shown in Figure 21.

Figure 21. Percentage of Households With Reduced Moisture Features, Before and After Repairs

<table>
<thead>
<tr>
<th></th>
<th>Before repairs</th>
<th>After repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free from moisture/leaks</td>
<td>39%</td>
<td>65%</td>
</tr>
<tr>
<td>Watertight roof</td>
<td>70%</td>
<td>95%</td>
</tr>
<tr>
<td>Rainwater directed away from foundation</td>
<td>60%</td>
<td>68%</td>
</tr>
<tr>
<td>Free from gaps in exterior walls</td>
<td>62%</td>
<td>66%</td>
</tr>
</tbody>
</table>

Note: Not all affiliates measure whether the roof is watertight.
Source: Pilot affiliates’ Healthy Housing Checklist data, 2018-2019 (watertight roof, N=184; all others, N=350).

In particular, pilot affiliates made substantial numbers of repairs to reduce moisture in homes, including ensuring that nearly 100% of homes had watertight roofs. Looking at the effect size metric, there is a 72%


probability that the average home pilot affiliates served would have received repairs to reduce moisture/leaks, and also a 72% probability of having had roof repairs.

Additional repairs to some homes included installation or redirection of rainwater downspouts, and repair to exterior walls; the chances of these modifications being made to the average home were lower, but not insignificant (61% for rainwater redirection, 58% for exterior wall repairs).

Protecting Against Airborne Contaminants

Functioning carbon monoxide alarms save lives and contribute to respiratory health. Although no rigorous studies have been conducted, some experts suggest that increasing the number of carbon monoxide alarms in homes would have an impact similar to installing and educating homeowners about smoke alarms.

In addition, a simulation conducted on behalf of the U.S. Department of Housing and Urban Development (HUD) with improvements similar to Rebuilding Together’s found that upgrading unvented combustion appliances is the "single most effective intervention" for reducing carbon monoxide and nitrogen dioxide in homes. The simulation found additional significant reductions of carbon monoxide from the installation or repair of externally vented kitchen and bathroom exhaust fans, assuming inhabitants used these fans when appropriate. The results of interventions by Rebuilding Together pilot affiliates are shown in Figure 22.

Figure 22. Percentage of Households With Other Respiratory Health Features, Before and After Repairs

Notes: CO is short for carbon monoxide. Not all affiliates measure whether or not the interior paint/wall coverings are intact. Source: Pilot affiliates’ Healthy Housing Checklist data, 2018-2019 (interior paint, N=184; all others, N=350).

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Specifically, pilot affiliates installed a large number of carbon monoxide detectors. In areas where it was assessed, pilot affiliates ensured that most homes (92%) had intact interior wall coverings. Using the effect size metric, there is a 71% probability that the average home served by pilot affiliates would have had a carbon monoxide detector installed, and a 65% probability of having had repairs to interior wall coverings (i.e., repainting).

Some homes also received repair or replacement of ventilation fans, pest eradication, and/or improved carbon monoxide venting for dryers and other combustion appliances; the chances of these repairs being made to the average home were lower, but not insignificant (57% for fans, 58% for dryer venting, 59% for pests, 55% for exhaust venting).

Potential for Improved Hygiene

Meta-analyses of scientific studies found consistent reductions in infectious disease (e.g., diarrhea, hookworm) related to improved access to clean water, whether for personal hygiene, for toileting, or for other uses. Studies of the effects of interventions in U.S. schools, day care, and elder-care settings found a 20% relative reduction in the risk of infectious disease with the use of hygiene practices such as proper hand-washing, bathing, and human waste disposal. The Rebuilding Together pilot affiliates’ activities included ensuring that homeowners had access to clean, running water—which is key to such hygiene practices—via functioning water heaters, sinks, and toilets.

“I had no hot water for three years before that repair, after the repair the hot water made everything better.” — Survey Respondent

Six months after repairs, more than half of survey respondents reported that bathing was easier than before. The effect size metric indicates there is an 83% probability that the average homeowner served by the pilot affiliates would report greater ease of bathing safely after repairs were completed, compared to before. There were no significant differences in post-repair ratings of ease of bathing among households with older adults vs. households without older adults, controlling for pre-repair ratings.

Figure 23. Increased Ease of Bathing

```
<table>
<thead>
<tr>
<th></th>
<th>Already easy</th>
<th>Easier than before</th>
</tr>
</thead>
<tbody>
<tr>
<td>How easy was/is it for you to take a bath or a shower safely?</td>
<td>36%</td>
<td>58%</td>
</tr>
</tbody>
</table>
```


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“I can now shower and wash my hair and wash my body, which was dangerous to do before.”
—Survey Respondent

There was a small increase in the proportion of homes with functioning plumbing between pre- and post-repairs (Figure 24). Looking at the effect size metric, there is a 61% likelihood that the average home would have received plumbing repairs as a result of affiliates’ activities.

Figure 24. Percentage of Households With Functioning Plumbing, Before and After Repairs


MENTAL HEALTH

It has been documented that homeowners experience stress related to home maintenance.46 Research shows that, although home ownership is considered to have a “therapeutic” effect, the stress of maintaining a home can be “emotionally draining” and “damaging to health.”47 By providing no-cost home repairs, Rebuilding Together can improve low-income homeowners’ mental health.

“No more stress when the wind blows or rains, and it looks great.” —Survey Respondent

Low-income homeowners rated their level of nervousness and stress about home repairs and maintenance. Figure 25 shows the survey respondents’ level of stress (proportion of total) before and after the pilot affiliates repaired their homes. The effect size metric indicates there is an 89% probability that the average homeowner served by pilot affiliates would report a lower level of stress after repairs were completed, compared to before.


Reducing Worry and Stress

Homeowners cited improved well-being among the changes that made the biggest positive impact on their lives. Among homeowners who rated their stress on a scale from 1 to 5 (with 5 being always/almost always stressed) as at least 3 (75 of 93 respondents), 87% reported a decrease in the frequency of feeling stressed. For example, out of the 34 people who rated their stress as “always/almost always” before repairs, 65% (22 respondents) rated their stress as a 1 or a 2 after repairs (“rarely” or “never/almost never”).

Almost three quarters of all participants (69 of 93 respondents) experienced less stress about home repairs and maintenance after repairs.

“As soon as I got the volunteer work from Rebuilding Together, it opened my heart to see there’s good things left in the world, that there’s empathy and love in the world.” —Survey Respondent

Building Confidence in Handling Stress

Three in five homeowners (60%) said they felt greater confidence in coping with life’s stressors six months after pilot affiliate repairs. The effect size metric suggests there is an 83% probability that the average homeowner pilot affiliates served would report greater confidence in coping with their worries after repairs were completed, compared to before.

Figure 26. Increased Feelings of Confidence Related to Stress

More than half of homeowners said they felt more happiness in their lives six months after pilot affiliates completed repairs. Based on the effect size metric, there is an 82% probability that the average homeowner would report more frequent happiness after repairs, compared to before.

Figure 27. Increased Feelings of Happiness

<table>
<thead>
<tr>
<th>How often did/do you feel happy?</th>
<th>Already happy</th>
<th>Happier than before</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>34%</td>
<td>58%</td>
</tr>
</tbody>
</table>


“Rebuilding team lifted my self-esteem as an older homeowner.” —Survey Respondent

A systematic review of studies found that home repairs—particularly improvements to thermal comfort and energy efficiency—have been associated with improved mental health.48,49 Rebuilding Together affiliates improved the ability to control interior temperature in a substantial number of homes. Looking at the effect size metric, there is a 68% likelihood that the average home served by the pilot affiliates would have received thermal comfort improvements during affiliates’ repairs.

Figure 28. Percentage of Households With Thermal Comfort Improvements (Interior Temperature-Controlled) Before and After Repairs

<table>
<thead>
<tr>
<th>Before repairs</th>
<th>After repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>69%</td>
</tr>
</tbody>
</table>

“We are much more comfortable since you installed our new furnace.” —Survey Respondent

Source: Pilot affiliates’ Healthy Housing Checklist data, 2018-2019 (N=349).

Finally, nearly three quarters (73%, 66 of 91 respondents) of homeowners said they felt more pride in their properties after repairs had been completed. The effect size metric suggests there is an 89% probability that the average homeowner would report a greater level of pride after repairs were completed, compared to before.

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INDEPENDENCE

Older adults and people with disabilities need safe and healthy homes that enable them to maintain independence and good health, and handle health crises and stresses if they occur. In addition, low-income adults need homes they can afford to own and maintain. One measure of independence is whether homeowners can “age in place” (stay in their own homes as they age).\(^\text{50}\) According to the AARP, although 76% of adults age 50 and older would like to remain in their current home as they age, only 46% feel they will be able to do so.\(^\text{51}\)

More pilot impact measurement survey respondents felt they would be able to age in place after repairs compared to before. The effect size metric suggests there is a 60% likelihood that the average homeowner whom pilot affiliates served would say they planned to stay in their home longer after repairs were completed versus before.

The repair of their homes especially helped individuals with poor health to envision themselves aging in place. A regression analysis showed that a significantly greater proportion (statistically speaking) of individuals who rated their health as not good prior to repairs said they planned to age in place after repairs were completed, compared to individuals who rated their health as “good” or “very good” prior to repairs. This was the case even after controlling for homeowners’ plans before repairs.\(^\text{52}\)

The Rebuilding Together pilot affiliates also made repairs and modifications that considerably increased mobility and use of the home among the low-income homeowners served. (See Safety section, page 25, and Physical Health section, page 29.)

“We are able to use electric appliances [now], such as fans, exercise machines, refrigerator, and heaters.” — Survey Respondent

Increasing Ability to Cook at Home

Another important aspect of independence is the ability to prepare meals. Greater frequency in home cooking is positively associated with healthier eating.\(^\text{53}\) The consumption of food prepared outside the home (dine-in or take-out) and ready-to-eat processed food has been on the rise nationally and around the


\(^\text{52}\) There was no significant difference among households with older adults vs. households without older adults, controlling for pre-repair plans.

world. Prepared and processed food typically contains more fat, sodium, sugar, and calories and less fiber and nutrition than home-cooked meals. Consumption of less-nutritious food is implicated in obesity, cardiovascular disease, and other chronic diseases. When homeowners lack access to working kitchen appliances (e.g., refrigerator, range), they have a higher risk of a poor diet and associated chronic diseases. Repair or replacement of kitchen appliances contributes to a homeowner’s ability to cook and eat more nutritious food.

Meta-analyses of scientific studies found consistent reductions in infectious disease (e.g., diarrhea, hookworm) related to improved access to clean water, whether for drinking, for dishwashing or other domestic cleaning, or other uses. Studies of the effects of interventions in U.S. schools, day care, and elder-care settings found a 20% relative reduction in the risk of infectious disease with the use of hygiene practices such as proper hand-washing and dishwashing. The Rebuilding Together pilot affiliates’ activities included ensuring that homeowners had access to clean, running water via functioning water heaters and sinks.

Enabling Better Kitchen Conditions

Six months after repairs, nearly one third of survey respondents reported that cooking was easier than before. Based on the effect size metric, there is a 72% probability that the average homeowner served by the pilot affiliates would report greater ease in cooking at home after repairs, compared to before. There were no significant differences in post-repair ratings of ease of cooking among households with older adults vs. households without older adults, controlling for pre-repair ratings of this item.

Figure 29. Increased Ease of Cooking

<table>
<thead>
<tr>
<th>How easy was/is it for you to cook at home?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Already easy</td>
</tr>
<tr>
<td>58%</td>
</tr>
</tbody>
</table>


There was a small increase in the proportion of homes with functioning kitchen appliances and water heaters between pre- and post-repairs (Figure 30). Looking at the effect size metric, there is a 58%
likelihood that the average home would have received improvements to kitchen appliances or water heaters during affiliates’ repairs.

Figure 30. Percentage of Households With Functioning Kitchen Appliances and Water Heaters, Before and After Repairs

"The new kitchen ... has opened my experience in my home with my children. So much joy and ease."
—Survey Respondent


ECONOMIC SECURITY

A home represents a larger proportion of the wealth in a low-income household compared with a high-income household. 60 Therefore, when the costs associated with a home (including maintenance) increase, low-income homeowners tend to experience greater financial stress than high-income homeowners. For example, increased housing costs exacerbate food insecurity in low-income families. 61 By providing repairs to low-income homeowners at no cost, Rebuilding Together’s efforts may relieve financial stress and, in some cases, also free up homeowners’ funds for other purposes.

Reducing Maintenance and Utilities Costs

While the majority saw no change in utilities or maintenance bills six months after repairs, compared to the same season the prior year, more than a quarter (28%) of low-income homeowners participating in the pilot impact measurement survey said their maintenance costs had decreased since the Rebuilding Together affiliates had completed repairs. None reported an increase in costs (N=78). When asked about utilities (e.g., water, energy), 21% indicated their costs were lower after repairs, and 7% said their costs were higher (N=83). 62

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62 The increase in utility costs may be the result of homeowners resuming the use of appliances (e.g., water heater, range, refrigerator, sink) that were previously broken, a difference in weather from the prior year, utility rate hikes, lack of weather-stripping or energy-efficient appliances, or an increase in the number of household members, among other possibilities.
Increasing the Ability to Afford Daily Necessities

The costs of a home can interfere with low-income homeowners’ ability to pay for food and other daily necessities. Before repairs, nearly two in five homeowners (39%) participating in the impact survey said they were either “not able” or “barely able” to pay for daily necessities, compared with fewer than one in three (32%) after repairs. Those who could “comfortably” pay their bills nearly doubled, from 7% to 13%. Using the effect size metric, there is a 61% chance that the average homeowner served by the pilot affiliates would report a greater ability to pay for daily necessities after repairs were completed, compared to before.

Enabling Intergenerational Wealth Transfer Among Low-Income Families

The transfer of wealth from one generation to the next — by, for example, a parent deeding a home to a child — plays a much larger role in the accumulation of wealth among lower-income populations (about 45% of net worth) than among those of higher incomes (18% of net worth). Close to two thirds of homeowners surveyed (63%, 55 of 87 respondents) indicated that they felt their home was more valuable as a financial asset after the pilot affiliate repairs than it was before. The effect size metric suggests there is an 83% likelihood that the average homeowner whom the pilot affiliates served would report an increase in their perception of home value after repairs were completed, compared to before.

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63 There was no significant difference in post-repair ability to pay for daily necessities among households by income category or age, controlling for pre-repair ability to pay for daily necessities.

Finally, nearly three quarters of respondents (72%, 43 of 60) said that they planned to pass their property on to a younger relative or a friend.

COMMUNITY BENEFITS

Home repairs positively influence the overall condition of the neighborhood\textsuperscript{65} and can have a positive spillover effect.\textsuperscript{66} Rebuilding Together believes that home repairs also boost social inclusion for the recipients of the repairs.

Figure 33. Greater Connectedness with Neighbors

<table>
<thead>
<tr>
<th>How much did/do you feel connected to your neighbors?</th>
<th>Already well-connected</th>
<th>More connected than before</th>
</tr>
</thead>
<tbody>
<tr>
<td>36%</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>


More than one quarter of homeowners said they felt an increased connection with their neighbors six months after pilot affiliate repairs. The effect size metric indicates there is a 70% likelihood that the average homeowner served by the pilot affiliates would report feeling a greater connection with their neighbors after repairs were completed, compared to before.

Qualitatively, many survey respondents commented on the repairs’ effect on community connectedness.

“The impact has been tremendous. Leaving the home for [people in wheelchairs] is critical for connecting with neighbors, church, and community.” —Survey Respondent

“I am so thankful to know new friends, and my beautiful garden now is so enjoyable to sit in the sun.” —Survey Respondent

“I went from very sad and uneasy to seeing the light of compassion from others. Eternally grateful.” —Survey Respondent

Improving Stability

Greater neighborhood stability is a desired outcome of Rebuilding Together’s work. Maintaining and repairing homes not only improves the chances that homeowners will be able to age in place\textsuperscript{67}, but also boosts the quality of housing stock and potentially slows the rate of property turnover.\textsuperscript{68,69} Although comprehensive research in this area to date is scarce — and Rebuilding Together has limited resources to conduct a thorough analysis at this time — the data related to pilot homeowners’ plans to age in place, transfer their property to a younger relative or friend, and the perceived value of their home as a financial asset due to pilot affiliates’ repairs, has helped raise Rebuilding Together’s understanding of the importance of stability in low-income neighborhoods.

Conclusions

The work done by Rebuilding Together’s pilot affiliates achieved positive outcomes in all six key areas of impact identified in the logic model:

SAFETY

The pilot affiliates’ work substantially reduced the risk of falls in low-income households by making toilet/tub modifications for greater accessibility and by installing strategically placed grab bars and handrails. Half of survey respondents who had experienced a fall or a close call in the six months before repairs rated their chances of falling after repairs as “low” or “no chance.”

The pilot affiliates also improved home security and fire and structural safety at the properties where work was performed. Repairs and modifications included installing or replacing fire extinguishers and smoke alarms in homes, enhancing window and door security, improving lighting, and reducing electrical hazards. Finally, repairs made it possible for nearly 100% of residents to have safe ingress to and egress from their home in case of an emergency.

PHYSICAL HEALTH

Nearly two thirds of low-income homeowners who reported that their health was less than “good” prior to repairs said that their health improved after the pilot affiliates completed their work. The improvements made by affiliates reduced dampness in homes (through stemming active leaks and providing watertight roofs) and lowered risks of inhaled contaminants (through the installation or replacement of carbon monoxide detectors and making sure interior wall coverings were intact); such measures can improve occupants’ respiratory health. In addition, more than half of survey respondents found bathing after repairs easier than before, which increases the potential for improved hygiene for homeowners and residents.

MENTAL HEALTH

The pilot affiliates’ repairs led to self-reported stress reduction around home repairs and maintenance among the majority of surveyed low-income homeowners, especially among those who were the most frequently stressed. Most low-income homeowners also reported the same or greater levels of happiness in their lives, as well as confidence in their ability to manage stress, after affiliates’ intervention. Additionally, increases in the ability for low-income homeowners to better control the interior temperature of their homes may be associated with improved mental health. Finally, the majority expressed feeling greater pride in their homes since the affiliates completed repairs.

INDEPENDENCE

Improvements made by the pilot affiliates increased the proportion of low-income homeowners surveyed who said they would be able to age in place, particularly among those with poor health. In addition, nearly a third said that they found cooking and preparing meals at home easier after the repairs were complete. For a small proportion, the repair or replacement of kitchen appliances contributed to homeowners’ ability to cook and eat healthier food.

ECONOMIC SECURITY

The pilot affiliates’ efforts increased the ability of low-income homeowners to pay for daily necessities, according to those who responded to the survey. In part, this may be the result of a reduction in utility
and/or home maintenance costs, which was reported by more than one quarter of respondents. In addition, over three in five respondents felt their home was of greater value as a financial asset after the repairs than before; because nearly three quarters planned to pass along their property to a relative or a friend, this plays a role in increasing intergenerational wealth transfer among the low-income population.

COMMUNITY

Qualitative evidence suggests that low-income homeowners felt repairs completed by the pilot affiliates made a difference in their neighborhood or community. Additionally, more than one quarter of low-income homeowners felt an increased connection with their neighbors following the repairs.

We note that we expect even clearer effects for Cohort 2, since we will be able to match survey respondents with the type of repairs made to their home, so that, for example, responses to the ease of cooking item are analyzed only for those who have had home mobility modifications and/or kitchen repairs/upgrades.

Recommendations

PROGRAM RECOMMENDATIONS

Healthy Housing Checklist use

Rebuilding Together should encourage affiliates to use the Healthy Housing Checklist to ensure essential safety installations (smoke alarms, carbon monoxide detectors, and fire extinguishers) are always at 100%. Affiliates should also consider using the checklist data to ensure healthy housing needs are met to the fullest extent possible, working to overcome barriers such as resource limitations or homeowner unwillingness to make certain repairs.

The national office should also help disseminate best practices to affiliates for collaborating with homeowners who initially resist or decline critical safety repairs. This could take the form of tips for communicating the risks associated with not addressing specific home safety issues and the benefits of doing so.

Consumer information and education

Rebuilding Together may consider new programs which provide information or education on topics that will help homeowners maintain safe and healthy homes and prevent the need for major repairs. Home maintenance training tools for homeowners to track and carry out preventive maintenance could be developed. Such tools might include a monthly preventive maintenance checklist distributed to the homeowner and preventive maintenance walk-throughs with household members at the close of each project. For older adults who are not able to handle all the regular maintenance tasks themselves, affiliates might consider providing a list of vetted local handymen and tips on how to interview and hire individuals to help with home maintenance.

Financial literacy improves the ability to manage one’s financial resources, a key to homeownership. Older adults may also need assistance filing for programs that can help reduce their costs (e.g., Medicare savings

programs, food assistance benefits, energy assistance benefits, property tax relief). Rebuilding Together could partner with organizations that have financial literacy curricula, so that affiliates could connect low-income homeowners with financial-planning education and related referrals to help them better manage their limited resources and retain their homes.

**PROCESS RECOMMENDATIONS**

Based on Actionable Insights' experience with, and observation of, the pilot impact measurement process, we recommend that the following changes be adopted for the coming year’s impact measurement efforts:

**Evaluators**

- Develop a standardized survey tracking spreadsheet and provide it to all affiliates participating in implementing the impact survey.
- Strongly suggest that affiliates send the survey single-sided, so that respondents do not accidentally overlook the flip-sides of survey pages.
- Conduct one-on-one calls with affiliate personnel within two weeks of the start of impact survey administration to answer any questions that might remain after initial training.
- Conduct a data quality audit earlier in the survey administration period (i.e., week three) in order to identify affiliates’ potential survey administration issues earlier. After sending the data quality memo to the national office as during the pilot study, conduct one-on-one calls the following week with affiliates that have not input any responses to date.
- Work with Rebuilding Together to institute required, regular one-on-one calls with affiliates that appear to be struggling with survey administration.

**Rebuilding Together National**

- Review affiliates’ self-determined priority-project criteria and approve or discuss with affiliates one month prior to survey administration.
- Revise the Healthy Housing Checklist:
  - Update the item related to the opening and closing of windows and doors to include the word “effectively” (i.e., “open and close effectively”).
  - In the item with the carbon monoxide detector, replace “gas” with “combustion.”
  - Consider separating out the water heater, refrigerator, and range into three separate items. At a minimum, make repair of refrigerator/range a separate item from repair of water heater(s).
  - In the item regarding carpeting, replace the word “filthy” with “worn.”
- Ensure that the printed Healthy Housing Checklist and the Rebuilding Together Salesforce module both include an “N/A” option to ensure more accurate data entry.
- Consider a “Refused” option on the printed Healthy Housing Checklist and in the Rebuilding Together Salesforce module to ensure greater accuracy in data collection.

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Affiliates

- Revisit training of individuals who conduct pre- and post-repair inspections in their use of the Healthy Housing Checklist, specifically regarding what to mark on both the pre- and post- when an item on the checklist does not require repairs.

- Financial cost savings are another important indicator of improvement for the households affiliates serve. The surveys implemented indicate improvement. To collect more objective data, we recommend that affiliates implement the collection of homeowners’ utility bills as part of the application before repairs so they may examine the difference after repairs are complete (during the same season for comparability).

It is not, of course, expected that every single recommendation will be implemented over the next year, and Rebuilding Together will want to consider carefully the potential impact of any proposed changes. However, by making some of these adjustments, both the impact measurement process and the work of affiliates and the organization overall could be more successful. Most importantly, the households that affiliates serve will reap the anticipated benefits, potentially experiencing even better outcomes from efforts that are still fully aligned with Rebuilding Together’s vision of safe homes and communities for everyone.
### HEALTHY HOUSING CHECKLIST RESULTS

Table 2. Healthy Housing Checklist Results, Pre- and Post- Comparisons, Ordered by Effect Size

<table>
<thead>
<tr>
<th>Indicator (N=Number of Properties)</th>
<th>Households Complete, Pre-</th>
<th>Households Complete, Post-*</th>
<th>Percentage Points (Proportional Increase)</th>
<th>Effect Size**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modifications to toilets and tubs assist those who need help using the toilet or bathing. (N=349)</td>
<td>54%</td>
<td>84%</td>
<td>30 points (+56%)</td>
<td>Effect Size: 74%</td>
</tr>
<tr>
<td>A currently dated Class ABC fire extinguisher is available in or near the kitchen. (N=350)</td>
<td>46%</td>
<td>73%</td>
<td>27 points (+59%)</td>
<td>Effect Size: 73%</td>
</tr>
<tr>
<td>Grab bars are strategically placed for those at risk of falls. (N=350)</td>
<td>55%</td>
<td>83%</td>
<td>28 points (+52%)</td>
<td>Effect Size: 73%</td>
</tr>
<tr>
<td>The home is free of active water leaks and serious moisture problems. (N=350)</td>
<td>39%</td>
<td>65%</td>
<td>26 points (+67%)</td>
<td>Effect Size: 72%</td>
</tr>
<tr>
<td>The roof is watertight. (N=184)</td>
<td>70%</td>
<td>95%</td>
<td>25 points (+36%)</td>
<td>Effect Size: 72%</td>
</tr>
<tr>
<td>A working CO detector protects homes with combustion appliances or attached garage. (N=350)</td>
<td>53%</td>
<td>75%</td>
<td>22 points (+42%)</td>
<td>Effect Size: 71%</td>
</tr>
<tr>
<td>Stairs and steps have secure handrails that meet occupants’ needs. (N=350)</td>
<td>61%</td>
<td>84%</td>
<td>23 points (+38%)</td>
<td>Effect Size: 71%</td>
</tr>
<tr>
<td>A working smoke detector is on each floor and in or near each bedroom to meet code. (N=350)</td>
<td>57%</td>
<td>79%</td>
<td>22 points (+39%)</td>
<td>Effect Size: 70%</td>
</tr>
<tr>
<td>The homeowner can maintain the interior temperature in a comfortable range. (N=349)</td>
<td>50%</td>
<td>69%</td>
<td>19 points (+38%)</td>
<td>Effect Size: 68%</td>
</tr>
<tr>
<td>The homeowner has safe ingress and egress to the home. (N=184)</td>
<td>84%</td>
<td>98%</td>
<td>14 points (+17%)</td>
<td>Effect Size: 66%</td>
</tr>
<tr>
<td>Interior paint and wall covering is intact. (N=184)</td>
<td>79%</td>
<td>92%</td>
<td>13 points (+16%)</td>
<td>Effect Size: 65%</td>
</tr>
<tr>
<td>Indicator (N=Number of Properties)</td>
<td>Households Complete, Pre-</td>
<td>Households Complete, Post-*</td>
<td>Percentage Points (Proportional Increase)</td>
<td>Effect Size**</td>
</tr>
<tr>
<td>-----------------------------------------------------------------------------------------------</td>
<td>---------------------------</td>
<td>-----------------------------</td>
<td>------------------------------------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Main rooms and stairs have adequate lighting for occupants to move about safely. (N=350)</td>
<td>59%</td>
<td>70%</td>
<td>11 points (+19%)</td>
<td>Effect Size: 64%</td>
</tr>
<tr>
<td>No known electrical hazards are present, and kitchens and baths have GFCIs. (N=350)</td>
<td>60%</td>
<td>71%</td>
<td>11 points (+18%)</td>
<td>Effect Size: 64%</td>
</tr>
<tr>
<td>Window and exterior doors open effectively, close and lock securely, and seal well. (N=350)</td>
<td>56%</td>
<td>66%</td>
<td>10 points (+18%)</td>
<td>Effect Size: 63%</td>
</tr>
<tr>
<td>The numerals in the property’s street address are clearly visible from the street. (N=350)</td>
<td>61%</td>
<td>69%</td>
<td>8 points (+13%)</td>
<td>Effect Size: 62%</td>
</tr>
<tr>
<td>Rainwater is effectively shed and directed away from the structure. (N=350)</td>
<td>60%</td>
<td>68%</td>
<td>8 points (+13%)</td>
<td>Effect Size: 61%</td>
</tr>
<tr>
<td>Main rooms and stairs are free of tripping hazards. (N=350)</td>
<td>66%</td>
<td>73%</td>
<td>7 points (+11%)</td>
<td>Effect Size: 61%</td>
</tr>
<tr>
<td>The homeowner has access to a working sink, toilet, and bathtub or shower. (N=350)</td>
<td>65%</td>
<td>72%</td>
<td>7 points (+11%)</td>
<td>Effect Size: 61%</td>
</tr>
<tr>
<td>Old, worn carpeting has been replaced, preferably with durable flooring. (N=350)</td>
<td>60%</td>
<td>64%</td>
<td>4 points (+7%)</td>
<td>Effect Size: 59%</td>
</tr>
<tr>
<td>The home is free of live infestation of pests, and sources of attraction are removed. (N=350)</td>
<td>67%</td>
<td>72%</td>
<td>5 points (+7%)</td>
<td>Effect Size: 59%</td>
</tr>
<tr>
<td>The clothes dryer, if present, vents outside with metal duct and unobstructed airflow. (N=350)</td>
<td>64%</td>
<td>68%</td>
<td>4 points (+6%)</td>
<td>Effect Size: 58%</td>
</tr>
<tr>
<td>Exterior walls have no gaps, cracks, or holes larger than 1/8 inch. (N=350)</td>
<td>62%</td>
<td>66%</td>
<td>4 points (+6%)</td>
<td>Effect Size: 58%</td>
</tr>
<tr>
<td>The kitchen and bathrooms have an exhaust fan vented outside. (N=350)</td>
<td>53%</td>
<td>56%</td>
<td>3 points (+6%)</td>
<td>Effect Size: 57%</td>
</tr>
<tr>
<td>Indicator (N=Number of Properties)</td>
<td>Households Complete, Pre-</td>
<td>Households Complete, Post-*</td>
<td>Percentage Points (Proportional Increase)</td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------</td>
<td>----------------------------</td>
<td>------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>The homeowner has access to a working water heater, refrigerator, and range. (N=350)</td>
<td>70%</td>
<td>74%</td>
<td>4 points (+6%) Effect Size: 58%</td>
<td></td>
</tr>
<tr>
<td>Water heaters, furnaces, and space heaters that produce CO exhaust outside. (N=350)</td>
<td>70%</td>
<td>71%</td>
<td>1 point (+1%) Effect Size: 55%</td>
<td></td>
</tr>
</tbody>
</table>

Notes: * All pre- to post- changes are statistically significant (p<.05) and positive based on McNemar change tests. ** These Common Language effect size statistics should be read as the likelihood that a home received a given repair or modification.

### HEALTHY HOUSING CHECKLIST DATA WINDOWS

In the summer of 2019, Actionable Insights requested the pilot affiliates to provide their Healthy Housing Checklist data and corresponding demographics for projects. The period of time covered by these data was left to affiliates’ discretion. The data were analyzed and the results presented at Rebuilding Together’s 2019 Training Institute in St. Louis, Mo.

Table 3. Healthy Housing Checklist Data Periods

<table>
<thead>
<tr>
<th>Affiliate</th>
<th>Period During Which Projects Occurred</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baltimore</td>
<td>January–June 2018</td>
</tr>
<tr>
<td>San Francisco</td>
<td>September 2017–July 2019</td>
</tr>
<tr>
<td>Seattle</td>
<td>April 2018–June 2019</td>
</tr>
<tr>
<td>Southeast Michigan</td>
<td>September 2018–August 2019</td>
</tr>
<tr>
<td>Southern Nevada</td>
<td>May 2018–July 2019</td>
</tr>
</tbody>
</table>

Source: Pilot affiliates, 2019.
Appendix C

PRIORITY PROJECTS AND RESPONDENTS

Of the survey responses, generally half or more came from priority projects.

Figure 34. Proportion of Survey Respondents to Priority Completed Projects, by Affiliate

- Priority projects completed in survey window (#)
- Priority surveys received (%)

### Appendix D

**IMPACT MEASUREMENT SURVEY RESULTS**

Table 4. Impact Measurement Survey Results, Pre- and Post- Comparisons, Ordered by Effect Size

<table>
<thead>
<tr>
<th>Indicator (N=Number of Respondents)</th>
<th>Average Pre-Score (Retro-spective)</th>
<th>Average Post-Score*</th>
<th>Average Change (Proportional Increase)</th>
<th>Effect Size**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of stress about home maintenance (N=93) (1=Always/almost always, 5=Never/almost never)</td>
<td>2.33</td>
<td>4.06</td>
<td>1.73 points (+74%)</td>
<td>Effect Size: 89%</td>
</tr>
<tr>
<td>Pride in property (N=91) (1=Not proud at all, 5=Very proud)</td>
<td>2.84</td>
<td>4.40</td>
<td>1.56 points (+55%)</td>
<td>Effect Size: 89%</td>
</tr>
<tr>
<td>Ease of bathing (N=90) (1=Very difficult, 5=Very easy)</td>
<td>3.09</td>
<td>4.54</td>
<td>1.46 points (+47%)</td>
<td>Effect Size: 83%</td>
</tr>
<tr>
<td>Confidence in coping with life stressors (N=91) (1=Not confident at all, 5=Very confident)</td>
<td>3.00</td>
<td>4.32</td>
<td>1.32 points (+44%)</td>
<td>Effect Size: 83%</td>
</tr>
<tr>
<td>Value of home as family financial asset (N=87) (1=Not valuable at all, 5=Very valuable)</td>
<td>3.18</td>
<td>4.40</td>
<td>1.22 points (+38%)</td>
<td>Effect Size: 83%</td>
</tr>
<tr>
<td>Frequency of feeling happy (N=91) (1=Never/almost never, 5=Always/almost always)</td>
<td>3.37</td>
<td>4.49</td>
<td>1.12 points (+33%)</td>
<td>Effect Size: 82%</td>
</tr>
<tr>
<td>Ease of ingress/egress (N=88) (1=Very difficult, 5=Very easy)</td>
<td>3.66</td>
<td>4.63</td>
<td>0.97 point (+27%)</td>
<td>Effect Size: 77%</td>
</tr>
<tr>
<td>Ease of cooking (N=81) (1=Very difficult, 5=Very easy)</td>
<td>3.78</td>
<td>4.52</td>
<td>0.74 point (+20%)</td>
<td>Effect Size: 72%</td>
</tr>
<tr>
<td>Physical health (N=93) (1=Very bad, 5=Very good)</td>
<td>3.37</td>
<td>3.90</td>
<td>0.54 point (+16%)</td>
<td>Effect Size: 71%</td>
</tr>
<tr>
<td>Feeling of connection with neighbors (N=95) (1=Not connected at all, 5=Very well-connected)</td>
<td>3.33</td>
<td>3.79</td>
<td>0.46 point (+14%)</td>
<td>Effect Size: 70%</td>
</tr>
<tr>
<td>Indicator (N=Number of Respondents)</td>
<td>Average Pre-Score (Retropective)</td>
<td>Average Post-Score*</td>
<td>Average Change (Proportional Increase)</td>
<td>Effect Size**</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------------------------</td>
<td>---------------------</td>
<td>----------------------------------------</td>
<td>--------------</td>
</tr>
<tr>
<td><strong>Ability to pay for daily necessities (N=90)</strong> (1=Not able to pay, 4=Comfortably able to pay, and more)</td>
<td>2.56</td>
<td><strong>2.71</strong></td>
<td>0.16 point (+6%)</td>
<td>Effect Size: 61%</td>
</tr>
<tr>
<td><strong>Length of time plan to stay in home (N=79)</strong> (1=Less than 5 years, 3=As long as possible/rest of my life)</td>
<td>2.78</td>
<td><strong>2.89</strong></td>
<td>0.10 point (+4%)</td>
<td>Effect Size: 60%</td>
</tr>
</tbody>
</table>

Notes: * All pre- to post- changes are statistically significant (p<.05) and positive, based on Wilcoxon ranked sign tests. ** Common Language effect size statistics may be read as the likelihood that a homeowner reported a higher rating after repairs were completed, compared to before.


**RESPONDENT DEMOGRAPHICS**

The demographics of respondents to the pilot impact measurement survey are shown below.

**Income Level**

Over one third of respondent households are extremely low-income, and more than 40% are very low-income. The chart below shows the distribution of respondents by household income category.  

**Figure 35. Pilot Survey Respondents’ Household Income Level**

Note: Percentages may not add to 100% due to rounding. N=92.

Source: Pilot affiliates’ application data, 2019.

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72 Pilot household median income is not available as data were provided by income category, not actual dollars.
Age Range

Nearly three quarters (73%) of all respondent homeowners are older adults, and 77% of respondents’ households had at least one older adult resident. One in ten respondents’ households (10%) had at least one child living in the home. The chart below shows the distribution of pilot survey respondents’ households served by homeowner age range.

Figure 36. Pilot Survey Respondents’ Homeowner Age Range

Race and Ethnicity

Over one third (38%) of residents\(^73\) in households that responded to the pilot survey are white. Another third (34%) are black, 13% are Asian/Pacific Islander, and 8% are Latinx. The rest are multiethnic or of some other race (7%).

Figure 37. Responding Pilot Households’ Ethnicity Distribution

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\(^73\) These data are based on the imputed ethnicity of residents; see Table 5 on the next page for more information.
Other Characteristics

Nearly one quarter (23%) of pilot homeowners surveyed said they had a U.S. military veteran in residence. Nearly two thirds (65%) of all respondents reported having a person with disabilities living in the household. Two-thirds (67%) of respondents said a woman was the homeowner.

Figure 38. Veterans, Persons with Disabilities, and Women

Note: These categories may overlap (e.g., a household with a female homeowner may also include a veteran). Veteran, N=77. Individuals with disabilities, N=98. Gender, N=97.

Source: Pilot affiliates’ application data, 2019.

DEMOGRAPHIC COMPARISONS

The households responding to the impact survey were reflective of the households served by the national affiliate network (see Table 5) in that the proportions of households with older adult residents (approximately 76%) and child residents (approximately 11%) were similar, gender representation of residents was similar (approximately 63% female), and the representation of black residents was similar (approximately 33%). Survey respondents were more likely to be from very low-income, rather than extremely low-income, households compared to the national network. Respondents were also more likely to be from households with veteran residents and from households in which individuals with disabilities resided than households served by the national network overall. Finally, respondents were more likely to be from homes with Asian/Pacific Islander residents, and less likely to be from homes with white, Hispanic/Latinx, or multiracial/other residents compared to the households served by the national affiliate network.

Table 5. Comparison of Demographics of Households Served

<table>
<thead>
<tr>
<th>Demographic Statistic</th>
<th>National Network Households Served (Total N=8,885)</th>
<th>Pilot Affiliates Households Served (Total N=197)</th>
<th>Pilot Survey Respondents Households (Total N=98)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Household income:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=7,649</td>
<td>N=187</td>
<td>N=92</td>
<td></td>
</tr>
<tr>
<td>Extremely low-income</td>
<td>43%</td>
<td>34%</td>
<td>36%</td>
</tr>
<tr>
<td>Very low-income</td>
<td>36%</td>
<td>42%</td>
<td>43%</td>
</tr>
</tbody>
</table>
### Demographic Statistic

<table>
<thead>
<tr>
<th></th>
<th>National Network Households Served (Total N=8,885)</th>
<th>Pilot Affiliates Households Served (Total N=197)</th>
<th>Pilot Survey Respondents Households (Total N=98)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low-income</td>
<td>18%</td>
<td>23%</td>
<td>20%</td>
</tr>
<tr>
<td>Moderate- or high-income</td>
<td>4%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Female homeowner</strong></td>
<td><strong>N/A</strong></td>
<td><strong>70%</strong></td>
<td><strong>67%</strong></td>
</tr>
<tr>
<td></td>
<td><strong>N=196</strong></td>
<td><strong>N=196</strong></td>
<td><strong>N=97</strong></td>
</tr>
<tr>
<td><strong>Female residents in household</strong></td>
<td>63% of all residents N=12,143</td>
<td>65% of residents N=243</td>
<td>62% of residents N=130</td>
</tr>
<tr>
<td>Older adult (65+) homeowner</td>
<td>N/A</td>
<td><strong>75%</strong></td>
<td><strong>73%</strong></td>
</tr>
<tr>
<td></td>
<td><strong>N=192</strong></td>
<td><strong>N=192</strong></td>
<td><strong>N=94</strong></td>
</tr>
<tr>
<td>Older adult resident in home</td>
<td>76% N=7,909</td>
<td>80% N=197</td>
<td>77% N=98</td>
</tr>
<tr>
<td>Child resident in home</td>
<td>11% N=7,909</td>
<td>14% N=194</td>
<td>10% N=97</td>
</tr>
<tr>
<td>Individual with disabilities resident in home</td>
<td>51% N=7,984</td>
<td>58% N=197</td>
<td>65% N=98</td>
</tr>
<tr>
<td>Veteran resident in home</td>
<td>17% N=7,661</td>
<td>25% N=163</td>
<td>23% N=77</td>
</tr>
</tbody>
</table>
| **Ethnicity:**        | **N=16,119**                                    | **N=165 actual residents** N=321 imputed residents  
(All residents, not just homeowner) | **N=96 actual residents** N=150 imputed residents  
74 |
| White                 | 48%                                              | 42% actual 49% imputed                          | 36% actual 38% imputed                          |
| Black                 | 33%                                              | 28% actual 26% imputed                          | 28% actual 34% imputed                          |
| Asian/Pacific Islander | 4%                                           | 18% actual 13% imputed                          | 20% actual 13% imputed                          |
| Latinx (of any race)  | 19%                                              | 6% actual 7% imputed                            | 7% actual 8% imputed                            |
| Multiracial/Other     | 15%                                              | 5% actual 5% imputed                            | 8% actual 7% imputed                            |

Sources: Rebuilding Together national data, 2019; pilot affiliates’ application data, 2019.

74 Based on the expectation of racial endogamy, in cases where only the homeowner’s race/ethnicity is reported, the other residents were assumed to be of the same race/ethnicity. See Rosenfeld, M. (2008). "Racial, Educational, and Religious Endogamy in the United States: A Comparative Historical Perspective." Social Forces, 87(1):1-31. Retrieved from https://web.stanford.edu/~mrosenfe/Rosenfeld_Endogamy_Comparative_Perspective.pdf
Appendix E

INSTRUMENTS

In this appendix are the Healthy Housing Checklist and the pilot Impact Measurement Survey. Most affiliates create their own checklists based on the national Healthy Housing Checklist.
<table>
<thead>
<tr>
<th>Rebuilding Together 25 Safe and Healthy Priorities</th>
<th>BEFORE</th>
<th>AFTER</th>
<th>CHANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The homeowner has safe ingress and egress to the home</td>
<td>Y / N</td>
<td>Y / N</td>
<td>★</td>
</tr>
<tr>
<td>2. The roof is watertight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Rainwater is effectively shed and directed away from the structure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Exterior walls have no gaps, cracks or holes larger than 1/8 inch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Windows and exterior doors open and close, lock securely and seal well</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Home is free of live infestation of pests, and sources of attraction are removed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The numerals in the property’s street address are clearly visible from the street</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Working smoke detector is on each floor and in or near bedrooms to meet code</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. A working CO detector protects home with gas appliances or attached garage</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. A currently dated Class ABC fire extinguisher is available in or near the kitchen</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Water heaters, furnaces and space heaters that produce CO exhaust outside</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. No known electrical hazards are present, and kitchens and baths have GFCIs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. The homeowner has access to a working water heater, refrigerator and range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. The kitchen and bathrooms have an exhaust fan vented outside</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. The homeowner has access to a working sink, toilet and bathtub or shower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Modifications to toilets and tubs assist those who need help</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Grab bars are strategically placed for those at risk of falls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Stairs and steps have secure handrails that meet occupants’ needs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Main rooms and stairs are free of tripping hazards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Old, filthy carpeting has been replaced, preferably with durable flooring</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Clothes dryer, if present, vents outside w/ metal duct and unobstructed airflow</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. The homeowner can maintain the interior temperature in a comfortable range</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Main rooms and stairs have adequate lighting for occupants to move safely</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Interior paint and wall covering is intact</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. The home is free of active water leaks and serious moisture problems</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KEY**
- Yes/No columns show each priority before and after repairs have been completed.
- The third + column highlights the results of repairs that change a priority from No to Yes.
Internal Prep

Rebuilding Together National Client Impact Survey

Before making a survey phone call or data-entering a mailed survey response, please complete the questions on this page for yourself and the homeowner.

* I. To which affiliate do you belong?
   - [ ] Baltimore
   - [ ] San Francisco
   - [ ] Seattle
   - [ ] Southern Nevada
   - [ ] Southeast Michigan

* II. Please enter the Unique Site ID# for the project whose homeowner’s data you will be entering.

III. How did you obtain this survey response?
   - [ ] By mail (i.e., in writing)
   - [ ] By phone (i.e., verbally)

Introduction

Rebuilding Together National Client Impact Survey

* IV. Interviewer name:
Hello my name is [Name] from Rebuilding Together [affiliate name]. A couple of weeks ago, Rebuilding Together sent you a letter about a survey we are doing.

If voicemail, say: "Please call me back at [RT phone number] and we can schedule a time to talk." Mark "Voicemail - left message" below and click "Next."

If answered: Did you get that letter?
- Yes, received letter & survey
- No, didn't receive letter & survey
- Not sure
- Voicemail - left message
- No answer or phone disconnected

VI. OK, well I would like to ask you a few questions about how you are doing, and how the home repairs and services you received back in [month] may have helped you. My questions will take about 10 or 15 minutes...

[IF OFFERING INCENTIVE:
[and we are offering a [describe incentive] for those who finish this interview].

...Is now a good time?
- Yes
- No

VII. When would be a better day and time? [Schedule with them and calendar the call; if they don't want to participate, say, "Thank you for letting me know. Good bye!"]
Instructions

We would like to know what may have changed for you since the time the repairs took place so that we can better understand how our services may have helped you. Most of the questions in this survey ask you to compare how things were before the repairs to how things are now, after the repairs. When we say “before,” we are asking you to think about the six months or so before the repairs took place. When we say “after,” we are asking you to think about the six months or so since the repairs were finished.

This survey is completely voluntary – that means that you are not required to participate in this survey, and you will still be free to apply for future repairs from Rebuilding Together even if you do not participate. You can answer all of the questions, or skip any questions that you do not want to answer.

You are helping us to make our sure our services have improved things for you -- not just in your home, but in your life as well.

Let's get started.

Rebuilding Together National Client Impact Survey

Living in your home

We are going to start with some questions about what living in your home was like for you before the repairs were made, and now after the repairs are done.

* 1A. I will first ask you to think back to how things were a year ago (about six months before the repairs happened). How easy was it to get into and out of your home before the repairs? We have a scale from 1, very difficult, to 5, very easy.

<table>
<thead>
<tr>
<th>1 - Very Difficult</th>
<th>2 - Somewhat Difficult</th>
<th>3 - Neutral</th>
<th>4 - Somewhat Easy</th>
<th>5 - Very Easy</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 1B. Thinking about how things are now: How easy is it to get into and out of your home? You can use the same scale, from 1, very difficult, to 5, very easy.

<table>
<thead>
<tr>
<th>1 - Very Difficult</th>
<th>2 - Somewhat Difficult</th>
<th>3 - Neutral</th>
<th>4 - Somewhat Easy</th>
<th>5 - Very Easy</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1C. DO NOT READ: Interviewer notes
* 2A. In the six months before the repairs, how easy was it for you to **cook at home**? We’ll use the same scale, from 1, very difficult, to 5, very easy.

<table>
<thead>
<tr>
<th>Before the repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Very Difficult</td>
</tr>
<tr>
<td>2 - Somewhat Difficult</td>
</tr>
<tr>
<td>3 - Neutral</td>
</tr>
<tr>
<td>4 - Somewhat Easy</td>
</tr>
<tr>
<td>5 - Very Easy</td>
</tr>
</tbody>
</table>

* 2B. And **now**, since the repairs were made, how easy is it for you to cook at home? 1 is very difficult and 5 is very easy.

<table>
<thead>
<tr>
<th>After the repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Very Difficult</td>
</tr>
<tr>
<td>2 - Somewhat Difficult</td>
</tr>
<tr>
<td>3 - Neutral</td>
</tr>
<tr>
<td>4 - Somewhat Easy</td>
</tr>
<tr>
<td>5 - Very Easy</td>
</tr>
</tbody>
</table>

2C. **DO NOT READ:** Interviewer notes

* 3A. In the time before the repairs, how easy was it for you to **take a bath or shower safely**? 1 is very difficult and 5 is very easy.

<table>
<thead>
<tr>
<th>Before the repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Very Difficult</td>
</tr>
<tr>
<td>2 - Somewhat Difficult</td>
</tr>
<tr>
<td>3 - Neutral</td>
</tr>
<tr>
<td>4 - Somewhat Easy</td>
</tr>
<tr>
<td>5 - Very Easy</td>
</tr>
</tbody>
</table>

* 3B. And **now**, how easy is it for you to take a bath or shower safely? Same scale.

<table>
<thead>
<tr>
<th>After the repairs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - Very Difficult</td>
</tr>
<tr>
<td>2 - Somewhat Difficult</td>
</tr>
<tr>
<td>3 - Neutral</td>
</tr>
<tr>
<td>4 - Somewhat Easy</td>
</tr>
<tr>
<td>5 - Very Easy</td>
</tr>
</tbody>
</table>

3C. **DO NOT READ:** Interviewer notes

---

**Mental Health and Happiness**

Now we’re going to switch things up a bit and ask you some questions about your health and happiness. Remember, it's OK to say you would like to skip any question on the survey if you would rather not answer it.
* 4A. Thinking back to how you felt in the six months before the repairs were made, how often did you feel **nervous or stressed about home repairs and maintenance**? The answers are on a scale from 1, always or almost always, to 5, never or almost never.

<table>
<thead>
<tr>
<th></th>
<th>1 - Always or almost always</th>
<th>2 - Often</th>
<th>3 - Sometimes</th>
<th>4 - Rarely</th>
<th>5 - Never or almost never</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 4B. And **now**, after the repairs have been made, how often do you feel nervous or stressed about home repairs and maintenance? Again, the answers go from 1, always or almost always, to 5, never or almost never.

<table>
<thead>
<tr>
<th></th>
<th>1 - Always or almost always</th>
<th>2 - Often</th>
<th>3 - Sometimes</th>
<th>4 - Rarely</th>
<th>5 - Never or almost never</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4C. **DO NOT READ: Interviewer notes**

|                          |                          |                          |                          |                          |                          |                          |

* 5A. In the time before the repairs, how confident did you feel about **your ability to cope with things in life that worried you or caused you stress**? The scale goes from 1, not confident at all, to 5, very confident.

<table>
<thead>
<tr>
<th></th>
<th>1 - Not confident at all</th>
<th>2 - A little bit confident</th>
<th>3 - Neutral</th>
<th>4 - Somewhat confident</th>
<th>5 - Very confident</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 5B. And **now**, how confident do you feel about your ability to cope with things that worry you or cause you stress? Again, 1 is not confident at all, and 5 is very confident.

<table>
<thead>
<tr>
<th></th>
<th>1 - Not confident at all</th>
<th>2 - A little bit confident</th>
<th>3 - Neutral</th>
<th>4 - Somewhat confident</th>
<th>5 - Very confident</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5C. **DO NOT READ: Interviewer notes**

|                          |                          |                          |                          |                          |                          |                          |

* 6A. In the six months before the repairs were made, how often did you **feel happy**? The answers are on a scale from 1, never or almost never, to 5, always or almost always.

<table>
<thead>
<tr>
<th></th>
<th>1 - Never or almost never</th>
<th>2 - Rarely</th>
<th>3 - Sometimes</th>
<th>4 - Often</th>
<th>5 - Always or almost always</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
6B. And now, after the repairs have been made, how often do you feel happy? Again, the answers go from 1, never or almost never, to 5, always or almost always.

<table>
<thead>
<tr>
<th>1 - Never or almost never</th>
<th>2 - Rarely</th>
<th>3 - Sometimes</th>
<th>4 - Often</th>
<th>5 - Always or almost always</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6C. DO NOT READ: Interviewer notes

7A. We are wondering if the repairs affected your feelings of connectedness with your neighbors. “Connectedness” could mean anything from chatting with each other to sharing a meal or helping each other. Thinking back, how much did you feel connected to your neighbors in the six months before the repairs? This is on a scale from 1, not connected at all, to 5, very well-connected.

<table>
<thead>
<tr>
<th>1 - Not connected at all</th>
<th>2 - Mostly not connected</th>
<th>3 - Neutral</th>
<th>4 - Mostly connected</th>
<th>5 - Very well-connected</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7B. And now, how much do you feel connected to your neighbors? Again, 1 is not connected at all and 5 is very well-connected.

<table>
<thead>
<tr>
<th>1 - Not connected at all</th>
<th>2 - Mostly not connected</th>
<th>3 - Neutral</th>
<th>4 - Mostly connected</th>
<th>5 - Very well-connected</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7C. DO NOT READ: Interviewer notes

Rebuilding Together National Client Impact Survey

Health

OK, let’s talk a little bit about health. If there are any questions you would rather not answer, just let me know.

8Ai. In general, in the six months before the repairs, how would you say your health was? 1 is very bad, and 5 is very good.

<table>
<thead>
<tr>
<th>1 - Very bad</th>
<th>2 - Bad</th>
<th>3 - Moderate</th>
<th>4 - Good</th>
<th>5 - Very Good</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
* 8Aii. And **now**, generally, how would you say your health is? Again, 1 is very bad, and 5 is very good.

<table>
<thead>
<tr>
<th>After the repairs</th>
<th>1 - Very bad</th>
<th>2 - Bad</th>
<th>3 - Moderate</th>
<th>4 - Good</th>
<th>5 - Very Good</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
</tbody>
</table>

**8B. [ASK ONLY IF HEALTH IMPROVED]** Would you mind my asking, do you think it got better because of anything to do with your home?
- ○ Yes
- ○ No
- ○ Not Sure
- ○ DO NOT READ: Skip

**8C. DO NOT READ: Interviewer notes**

---

We’re about halfway through now. The next question is:

* 9. In the six months before repairs, did you have a **fall on your property**? By a “fall,” we mean when a person unintentionally comes to rest on the ground or a lower level.
- ○ Yes
- ○ Almost -- had a close call or two
- ○ No
- ○ DO NOT READ: Skip

**9a. DO NOT READ: Interviewer notes**

---

* 10. In general, how would you **rate your chances of falling** on your property now (after the repairs have been made)? No chance, low chance, moderate, or high chance of falling?
- ○ No chance of falling
- ○ Low chance of falling
- ○ Moderate chance of falling
- ○ High chance of falling
- ○ DO NOT READ: Not Sure/Skip
Rebuilding Together National Client Impact Survey

**Finances**

The next questions are about finances -- again, it's OK to tell me that you want to skip any questions you would rather not answer.

* 11. Would you say that as a result of the repairs you received, the costs of your **utility bills** (like water or energy) have changed? The choices are:

- Yes; bills are lower
- Yes; bills are higher
- A mix; some are lower, others are higher
- No Change
- DO NOT READ: Not Sure/Skip

* 12. Would you say that as a result of the repairs you received, the costs for your **regular home maintenance** have changed? The choices are the same as before:

- Yes; costs are lower
- Yes; costs are higher
- A mix; some are lower, others are higher
- No Change
- DO NOT READ: Not Sure/Skip
* 13A. I'm going to read four statements; please tell me which one most accurately describes your **ability to pay for daily necessities BEFORE** the repairs. (Daily necessities are things like food, medicine, utilities, and household supplies.)

- Not able to pay for necessities
- Barely able to pay
- Just able to pay but not much more
- Comfortably able to pay, and more
- DO NOT READ: Not Sure/Skip

* 13B. Let me read those four again, and this time, please tell me which one most accurately describes your **ability to pay for daily necessities AFTER** the repairs?

- Not able to pay for necessities
- Barely able to pay
- Just able to pay but not much more
- Comfortably able to pay, and more
- DO NOT READ: Not Sure/Skip

13C. **DO NOT READ: Interviewer notes**

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**Rebuilding Together National Client Impact Survey**

**Future Plans with Property**

These last questions are about your property and your future plans. Just let me know if there are any questions you would rather not answer.

* 14A. Thinking about what your property was like a year ago (six months before the repairs), how did you feel about it? On a scale of 1 to 5, where 5 is very proud and 1 is not proud at all, **what was your level of pride in your property**?

<table>
<thead>
<tr>
<th>1 - Not proud at all</th>
<th>2 - Slightly proud</th>
<th>3 - Neutral</th>
<th>4 - Proud</th>
<th>5 - Very proud</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
<td></td>
<td></td>
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</tbody>
</table>
* 14B. And **now**, how do you feel about your property? Remember, 5 is very proud and 1 is not proud at all.

<table>
<thead>
<tr>
<th>1 - Not proud at all</th>
<th>2 - Slightly proud</th>
<th>3 - Neutral</th>
<th>4 - Proud</th>
<th>5 - Very proud</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>After the repairs</td>
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</tbody>
</table>

14C. **DO NOT READ: Interviewer notes**

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* 15A. Thinking about your home’s condition a year ago, **how valuable did you feel your home was as a financial asset** to you and your family? On this scale, 1 is not valuable at all and 5 is very valuable.

<table>
<thead>
<tr>
<th>1 - Not valuable at all</th>
<th>2 - Slightly valuable</th>
<th>3 - Neutral</th>
<th>4 - Valuable</th>
<th>5 - Very valuable</th>
<th>DO NOT READ: Not Sure/Skip</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before the repairs</td>
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</tbody>
</table>

* 15B. And **now**, given its condition after the repairs, how valuable do you feel your home is as an asset to you and your family? 1 is not valuable at all and 5 is very valuable.

<table>
<thead>
<tr>
<th>1 - Not valuable at all</th>
<th>2 - Slightly valuable</th>
<th>3 - Neutral</th>
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</tbody>
</table>

15C. **DO NOT READ: Interviewer notes**

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* 16. Still thinking of your home as an asset, do you plan on **passing your home** to a younger relative or friend later in your life?

- Yes
- No
- **DO NOT READ: Not Sure/Skip**

16a. **DO NOT READ: Interviewer notes**

OK, there are just two more questions. We know that things happen in life that no one expects. These next questions ask about what your plans were and are like to stay in your home. Please think about what you would expect if things mostly stayed the same.
* 17A. **How long did you think you would stay in your home BEFORE the repairs were performed?** The choices are:

- As long as possible (rest of my life)
- More than 5 years but not rest of my life
- Less than 5 years
- DO NOT READ: Not Sure/Skip

* 17B. Finally, how long do you think you would stay in your home **now that the repairs are done**? The answer choices are the same as before:

- As long as possible (rest of my life)
- More than 5 years but not rest of my life
- Less than 5 years
- DO NOT READ: Not Sure/Skip

17C. **DO NOT READ: Interviewer notes**

18. Those are all the questions we have for you. **Is there anything else you’d like to share with us about the impact Rebuilding Together has had for you?**

18a. **DO NOT READ: Interviewer notes**

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**Rebuilding Together National Client Impact Survey**

**Final page - Closing**

Thank you so much for your time!
We really appreciate your helping us evaluate the results of the services that Rebuilding Together provides. [If no incentive, end call here: Thanks again and have a good day!]

[IF INCENTIVE, CONTINUE:]

VIII. We’d like to make sure that we send the [gift card or other incentive] to the right place; would you please confirm that your address is.... [read off address]? [If not accurate, type in correct address below and print screen before clicking “Done” in order to save address for mailing incentive.]

Thanks again and have a good day!

DO NOT READ:

IX. AFTER YOU HANG UP, if there are any notes you, the interviewer, wish to communicate to the data analysts, please type them here.