RESEARCH BRIEF

IMPROVING AMERICA'S HOUSING

Healthy Home Remodeling: Consumer Trends and Contractor Preparedness

JANUARY 2019 | ELIZABETH LA JEUNESSE

JCHS
JOINT CENTER FOR HOUSING STUDIES OF HARVARD UNIVERSITY

U.S. consumers are increasingly worried about the link between health and everyday environmental exposures. As of 2018, 30 percent of all U.S. households expressed concerns about some aspect of their home negatively impacting or posing a risk to their health. Indoor air quality ranked as the leading source of concern, with moisture/mold and household dust as the most often cited specific worries. Yet while consumers are increasingly engaged in efforts to make their homes healthier, only half of general remodeling contractors actively participate in this market niche at present. As consumer knowledge in this area increases, particularly among young households, remodeling firms will continue to face the dilemma of how to integrate healthy housing products and techniques into their business practice. Our survey results show that while cost barriers prevent many contractors from focusing on this niche, the benefits to active participation in "healthy home remodeling" are also substantial, with more than two-thirds of participating contractors citing increased customer satisfaction and loyalty.

Introduction

Consumer concerns over potential health impacts of household products and the built environment are by no means new, yet in recent years interest in this topic has grown rapidly. Illustratively, as of this year web searches on Google for the term "non-toxic" marginally outpaced even those for the term "energy efficient" **(Figure 1)**. Many terms relating directly to common household and building products are often searched for in combination with "non-toxic": paint, flooring, sealants/glues, and carpeting. Heightened concerns over how to curate a "healthy home" environment are also evident in recent actions of major household product dealers, such as Target and Amazon, to restrict or phase out certain "chemicals of concern" in many household products, such as those related to cleaning and personal care, in response to concerns over insufficient federal government regulations.[1]

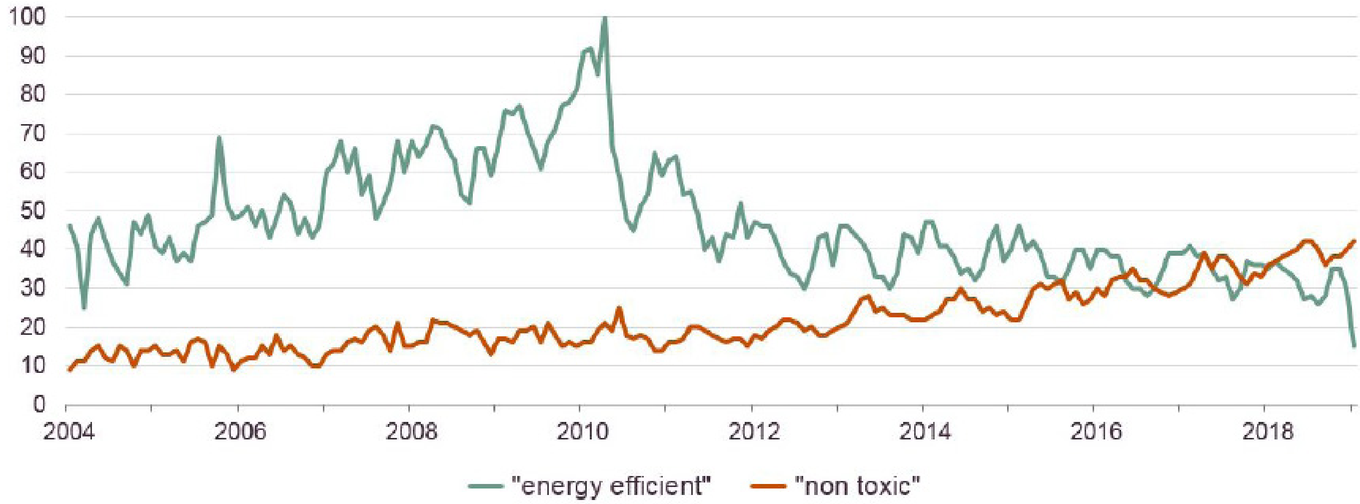
The purpose of this paper is to explore recent trends in "healthy housing" as they specifically relate to the nation's $400 billion home improvement and repair industry. First, we examine what U.S. consumers are saying about "healthy housing" concerns in relationship to the need for home improvement and repairs, and how these concerns have trended in recent years. Consumer perceptions and actions are explored by a variety of demographic characteristics, including household age, tenure and education. Second, this paper explores how and the extent to which remodeling contractors are adapting and responding to consumer demand for healthy home projects. Remodeling contractors' preparedness to handle consumers' changing demands in this area will be examined, along with common barriers and benefits to participation in this niche of the remodeling market.

A major finding of this paper is that while consumer interest in "healthy home remodeling" is on the rise, and the remodeling trades' awareness of this shift is growing rapidly, this market niche is still in the early stages of its growth. Many remodeling contractors are not yet heavily engaged in this market, and only a small portion are pursuing healthy home remodeling as a clear strategic objective. To be sure, there are certain "healthier" products, such as low-VOC paints and formaldehyde-free woods, that are becoming standard in the industry. Yet overall industry engagement in this area remains muted, particularly in comparison with other popular remodeling market niches such as energy efficiency and sustainability.

On the positive side, there remain considerable opportunities for future growth on the horizon: strong interest on the part of younger consumers, particularly those with children, as well as the rise of home automation products and services, are both likely to help propel the market for healthy home remodeling forward in the coming years. At the same time, however, considerable barriers exist to contractor engagement. Pricing is a top concern, along with the fact that healthy home projects often require specialized training and knowledge. In the current context of minimal government regulations and incentives promoting healthy housing objectives, industry adoption of "healthy home" objectives and techniques is expected to progress slowly but steadily over time.

FIGURE 1: INTEREST IN 'NON-TOXIC' PRODUCTS IS RISING

INDEX OF GOOGLE SEARCH TRENDS INTEREST OVER TIME



Note: Index is normalized from 0 to 100 and reflects how many searches have been done for the particular term relative to the total number of searches done on Google (across all categories of web search).
Source: U.S. Google trends query for "non-toxic" and "energy-efficient," accessed January 4, 2019.

Methodology

To explore these questions, the Joint Center and the Farnsworth Group collaborated in the summer of 2018 to field surveys of three key industry groups—homeowners, renters, and remodeling contractors—on the topic of healthy housing and healthy home remodeling. Surveys of 1,751 homeowners and 718 renters across the U.S. were fielded representing a full cross-section of ages. In addition, a survey of 579 remodeling contractors of varying sizes, ranging from small firms to multi-million-dollar companies, was conducted. Most of these firms worked exclusively on owner-occupied homes, and over half were general contractors. All three surveys were fielded online and were modeled after similar surveys conducted in 2014, enabling some limited analysis of trends over time. To obtain additional context in which to interpret these results, we also conducted extended telephone interviews of remodeling industry professionals in the fall of 2018. These conversations focused on broad trends in the healthy home remodeling niche, including relevant product categories gaining in popularity.

For the purposes of this research, we defined "healthy home remodeling" as any project that includes products or techniques aimed at protecting or enhancing indoor environmental health by advancing a broad range of objectives, including not only basic safety and comfort but also the avoidance of invisible hazards in a home's air, water, or building materials. At present, most state and local housing or sanitary codes already specify minimum standards for basic physical safety and comfort, or habitability, and to a large extent these regulatory efforts appear to be working. For example, results from the American Housing Surveys suggest that the incidence of inadequate housing (i.e., units lacking certain basic health and safety requirements) declined further in recent years, from 6.3 percent in 2001 to just 4.9 percent in 2017.[2] Our focus was therefore on other, non-structural hazards that may be less commonly understood, measured or effectively managed among homeowners and renters alike. These include, but are not limited to, concerns over mold/moisture, indoor air quality and ventilation, water quality, chemicals in the home, noise insulation problems, and light pollution. Households and contractors alike were asked about these issues in our surveys in greater detail.

Consumer Trends

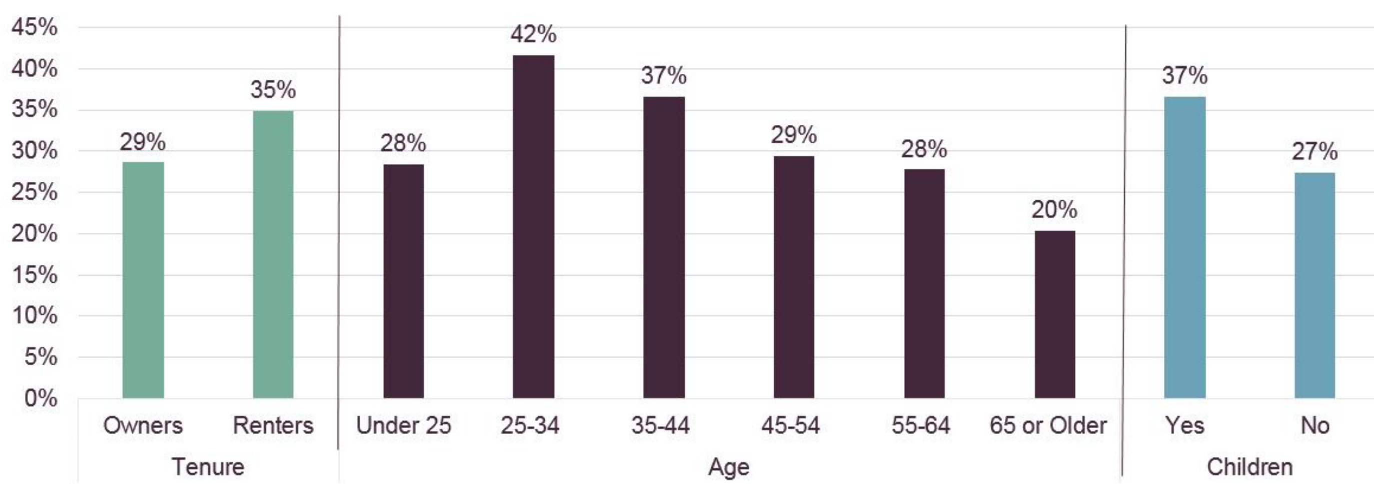
Consumers Are Concerned

Results from our household surveys indicate that consumer appetite for healthier housing environments, broadly speaking, is substantial and growing. In 2018, fully 30 percent of U.S. households expressed specific concerns over some aspect of their "current home negatively affecting" a household member's or other occupant's health, up from 27 percent in 2014. Renters were more likely than owners to express broad healthy housing concerns in both survey years. In 2018, for example, about 35 percent of renters expressed such concerns while only 29 percent of owners did (**Figure 2**). The incidence of concerns was also higher among households with children, as well as among young age groups, particularly age 25 to 34, where fully 42 percent of households expressed concerns in 2018. In contrast, a lower share, only 20 percent of older households (age 65 and older), expressed concerns or suspected risks. Among homeowners and renters alike, households aged 25-34 were the most likely age group to report concerns over healthy housing issues in 2018. These findings echo comments from multiple remodeling industry professionals who cited young adults, particularly millennials, as being most engaged in questions of environmental health risks, especially when they may be starting a family.

Although healthy housing concerns were less commonly reported among households of older ages, this finding was driven almost entirely by homeowners. Indeed, healthy housing concerns held relatively steady among renters of progressively older ages (**Figure 3**). This is consistent with the possibility that renters may have less opportunity than owners to remediate or avoid healthy housing concerns over time as they age into their homes. Surprisingly, the incidence of concerns did not appear to be driven by household income; however, education levels were significant. Specifically, even after controlling for other factors such as tenure, age, and the presence of children, households with an associate degree or more were significantly more likely than those without a high school degree to express concerns over healthy housing issues or risks, suggesting that education may play a role in driving awareness.

FIGURE 2: HEALTHY HOUSING CONCERNS HIGHEST AMONG RENTERS, MILLENNIALS, FAMILIES WITH CHILDREN

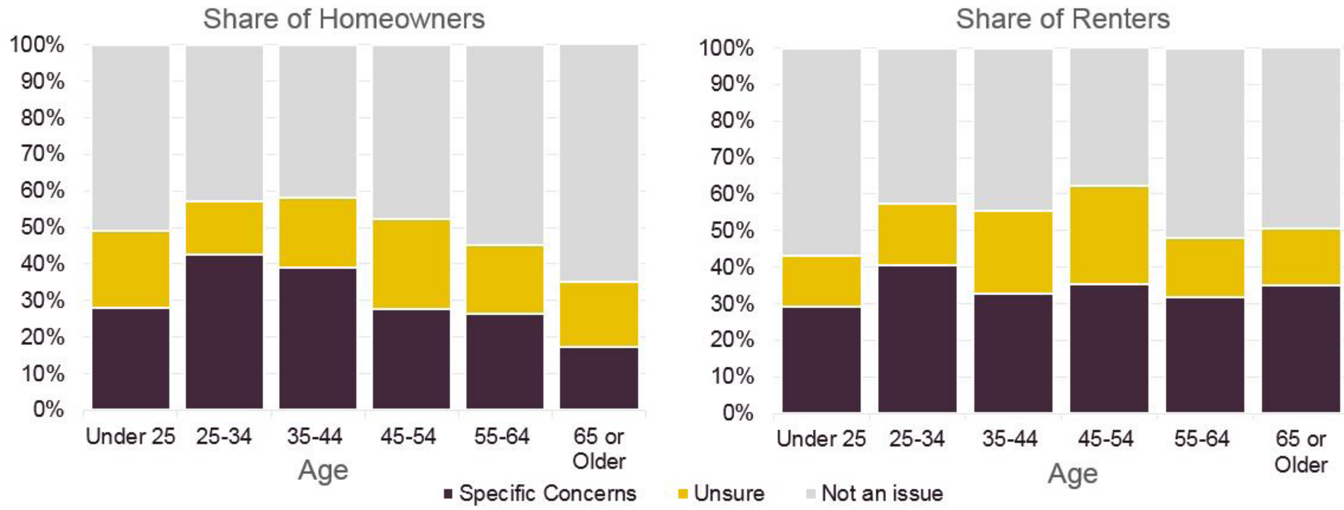
SHARE OF HOUSEHOLDS EXPRESSING SPECIFIC CONCERNS ABOUT THEIR HOME POSING A HEALTH ISSUE AND/OR RISK



Note: Out of a sample of 1,751 homeowners and 718 renters.
Source: Farnsworth Group and Joint Center Healthy Homes Surveys, August 2018.

FIGURE 3: HEALTHY HOUSING CONCERNS ARE HIGHEST IN EARLY-MIDDLE AGES, ESPECIALLY AMONG OWNERS

IN THE PAST FEW YEARS, HOW CONCERNED HAVE YOU BEEN ABOUT YOUR CURRENT HOME NEGATIVELY AFFECTING YOUR OR ANOTHER OCCUPANT'S HEALTH?



Note: Out of a sample of 1,751 homeowners and 718 renters.
Source: Farnsworth Group and Joint Center Healthy Homes Surveys, August 2018.

Areas of Greatest Concern

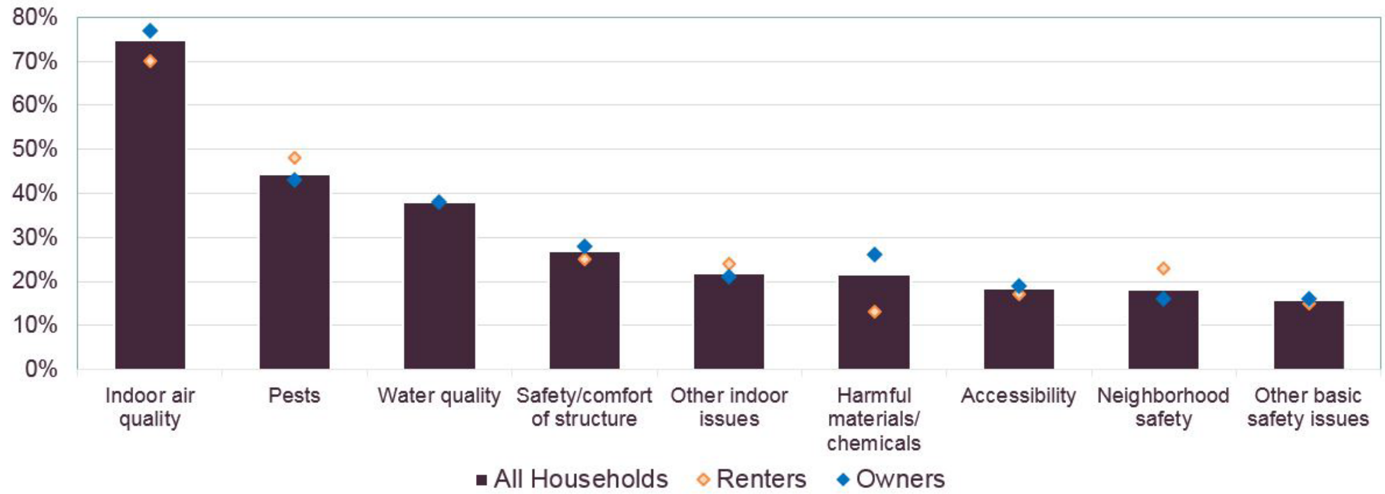
When asked to further categorize their concern(s) about the impact of their home on their health, households' leading response by far was indoor air quality (IAQ), with three out of four households surveyed citing IAQ as a source of their concern(s) in 2018, where examples given of IAQ issues included mold, dust, cooking exhaust, and air pollution (**Figure 4**). Households' specific comments related to this topic were wide-ranging, but often focused on mold concerns, and/or specific health conditions such as asthma.[3] After IAQ, the next most commonly cited source of concern was household pests (cited by 44 percent of concerned households), followed by water quality (38 percent) and the safety or comfort of the physical structure (27 percent). Meanwhile other concerns (including accessibility, harmful chemicals in the home, light and noise issues, and the safety[4] of the neighborhood) were cited by fewer than one in four householders. Specific concerns among homeowners and renters were similar, except that owners were relatively more focused on indoor air quality and chemicals, whereas renters reported more frequent concerns over neighborhood safety.

These findings echoed our discussions with remodeling industry professionals, all of whom also cited indoor air quality as a top concern among consumers. Several industry pros also cited the safety of the structure as being front-of-mind for consumers, insofar as any remodeling project always requires overall "good design" as well as an implicit "warrant of habitability." As Bill Owens, president of Owens Construction, explained, a guarantee of safety and habitability should not be thought of as an added "bonus" since they ought to be an implicit feature of any professional residential remodeling project. At the same time, our survey results clearly suggest that many U.S. consumers still have lingering concerns over the safety of their homes, whether due to invisible hazards such as IAQ and water quality issues or even to basic unresolved structural and safety concerns.

Some of the findings were surprising. For example, only a few households emphasized "harmful materials/ chemicals in the home" as a problem, where examples given included radon gas, formaldehyde, and cleaning products. While these can and often do impact a home's IAQ—which was households' number one concern— most households are apparently not thinking in terms

FIGURE 4: INDOOR AIR QUALITY, PESTS, AND WATER QUALITY ISSUES TOP LIST OF CONCERNS ABOUT THE IMPACT OF HOME ON HEALTH

WHICH CATEGORY OR CATEGORIES BEST DESCRIBE YOUR CONCERN ABOUT THE IMPACT OF YOUR HOME ON YOUR HOUSEHOLD'S HEALTH?



Note: Out of a sample of 501 homeowners and 250 renters concerned about specific healthy housing issues.
Source: Farnsworth Group and Joint Center Healthy Homes Surveys, August 2018.

of specific chemical hazards per se. We were also surprised to see that accessibility ranked relatively low as a concern. While many remodeling pros with whom we spoke cited accessibility retrofits as another area of opportunity/growth, most households did not emphasize this issue, and appeared to be more focused on other problems.

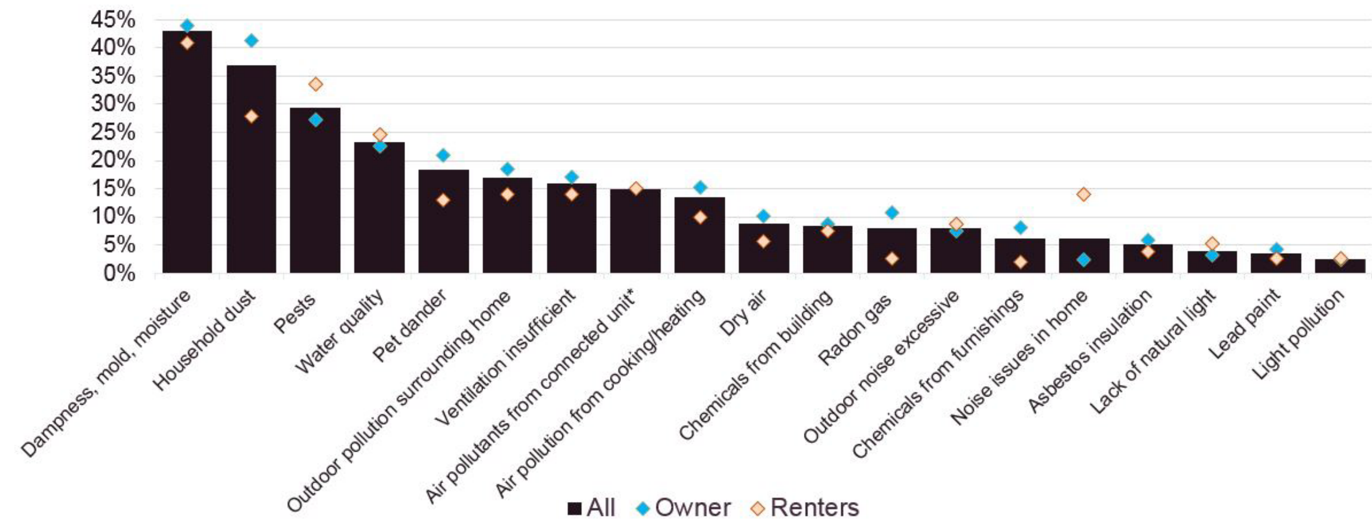
Consumer Focus on Specific Problems

Next, we sought to identify specific indoor problems that were top of mind for those consumers concerned about non-structural hazards in the home. When asked to further identify specific issues, beyond basic safety and accessibility, that generated the "most concern" for their households, owners and renters alike frequently cited dampness/mold/moisture, dust, pests, and water quality as their most pressing concerns (**Figure 5**). Households' emphasis on these issues was notable particularly because low-cost remedies are readily available to many of them (i.e., (de)humidifiers, air purifiers, vacuum cleaners, water filters, etc.). Dampness/mold/moisture may be the exception, where remediation can be significantly more involved, depending on the nature of the problem. Worries over ventilation and pollution coming from outdoors also stood out for both homeowners and renters, being cited by between 10 and 20 percent of households.

We also found some differences between renters and owners in terms of the specific indoor issues they emphasized. Renters, for their part, were significantly more focused on pests (cited by 34 percent of concerned renters) and noise issues in the home or building (14 percent)—issues which may relate to the denser nature of multifamily buildings where renters are more likely to live. In contrast, homeowners expressed more frequent concerns about a host of issues related to IAQ: household dust (cited by 41 percent of concerned owners), pet dander (21 percent), air pollution from cooking/heating (15 percent), radon gas (11 percent), dry air (10 percent), and chemicals from furnishings (8 percent). Interestingly, neither type of household expressed frequent worries over lighting issues, whether light pollution or lack of natural light. Concerns over asbestos and lead paint in the home were similarly infrequent.

FIGURE 5: DAMPNESS/MOLD, HOUSEHOLD DUST, PESTS TOP LIST OF CONCERNS ABOUT INDOOR ENVIRONMENTAL QUALITY ISSUES

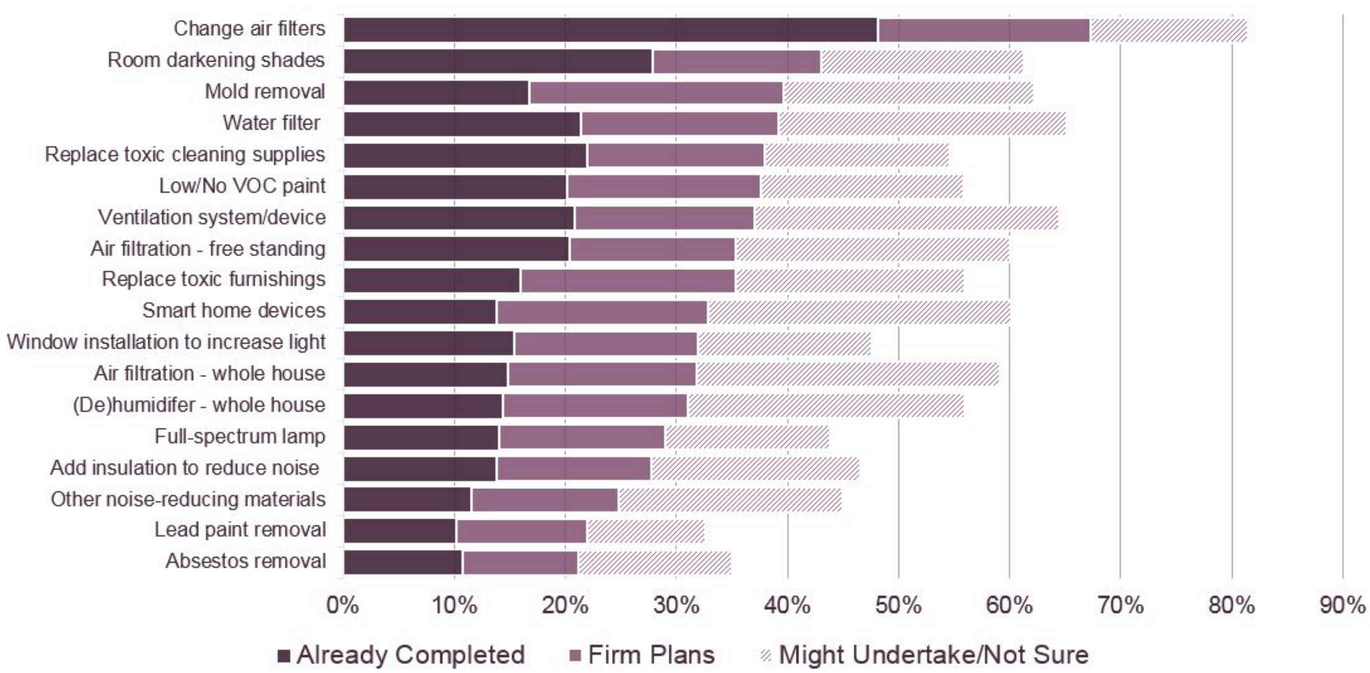
INDOOR ENVIRONMENTAL QUALITY ISSUES THAT GENERATED THE MOST CONCERN



Notes: Out of a sample of 493 homeowners and 244 renters concerned about indoor environmental quality issues (i.e., issues other than accessibility and basic physical safety). Households were asked, "Among the healthy home issues that concerned your household, please select up to three of them that generated the most concern." (*) denotes that the question was not asked of homeowners.
Source: Farnsworth Group and Joint Center Healthy Homes Surveys, August 2018.

FIGURE 6: MANY DO-IT-YOURSELF JOBS TOPPED THE LIST OF POPULAR HEALTHY HOME PROJECTS

SHARE OF HOMEOWNERS REPORTING HEALTHY HOME PROJECT ACTIVITY OR PLANS



Note: Out of a sample of 501 homeowners concerned about specific healthy housing issues.
Source: Farnsworth Group and Joint Center Healthy Homes Survey, August 2018.

Consumer Action and Inaction

Consumers did not just talk about their concern; a sizable share of homeowners who expressed concerns about healthy housing issues also reported taking or planning actions to address them. For example, more than a third of owners reported either already completing or having firm plans to undertake a handful of healthy home remediation steps ranging from the relatively easy (changing air filters) to more extensive projects that typically require a professional (e.g., mold removal and ventilation system installation) (**Figure 6**). Many of those action(s) that were most commonly completed or planned could easily be done without a professional—so called do-it-yourself (DIY) projects. However, sizable shares of owners also reported past actions on, or plans to undertake, more complex jobs requiring the help of a pro. For example, nearly a third said that they had already installed, or had firm plans to install, a whole-house air filtration system. Likewise, over 20 percent cited previous asbestos or lead paint removal or else had firm plans to remediate these hazards.

Yet for a variety of reasons there were also sizable shares of concerned households who expressed ambivalence about whether to act. Financial reasons were the most commonly cited barrier to action (mentioned by 62 percent of ambivalent owners in our free response question), followed by insufficient time (13 percent) and the high cost of the job itself (11 percent). Another 9 percent of those postponing action cited the need for more information or a lack of knowledge. A small share (5 percent) also cited difficulty finding a trusted installer to complete the job.

Renters' ability to act on healthy housing concerns was even more complicated due to the nature of the tenant-landlord relationship. For example, only one in four renters who expressed concerns about indoor healthy housing issues described their landlord as being highly reliable and protective of occupants' health. Meanwhile, 40 percent of concerned renters reported feeling disturbed or harmed by routine property maintenance or other activities by their landlord sometime in the past five years. Most of these complaints dealt with either disruptive construction noise or landlord negligence in conducting repairs, especially of HVAC equipment. Others also cited unresolved issues of rodents, bugs, and mold.

In addition, among renters concerned about healthy housing issues, fully 38 percent reported that a specific concern had been so bothersome that it caused them or another household member to move or to seriously consider moving to another rental unit. Of course, many state and municipal maintenance codes stipulate minimum health protections for renters. However, enforcement of these codes is often reactive rather than proactive, meaning the onus is on the renters to advocate for their needs. In such cases, renters' desire to remediate health hazards may be swamped by other needs such as maintaining housing affordability or stability, or by fear of rent increases.

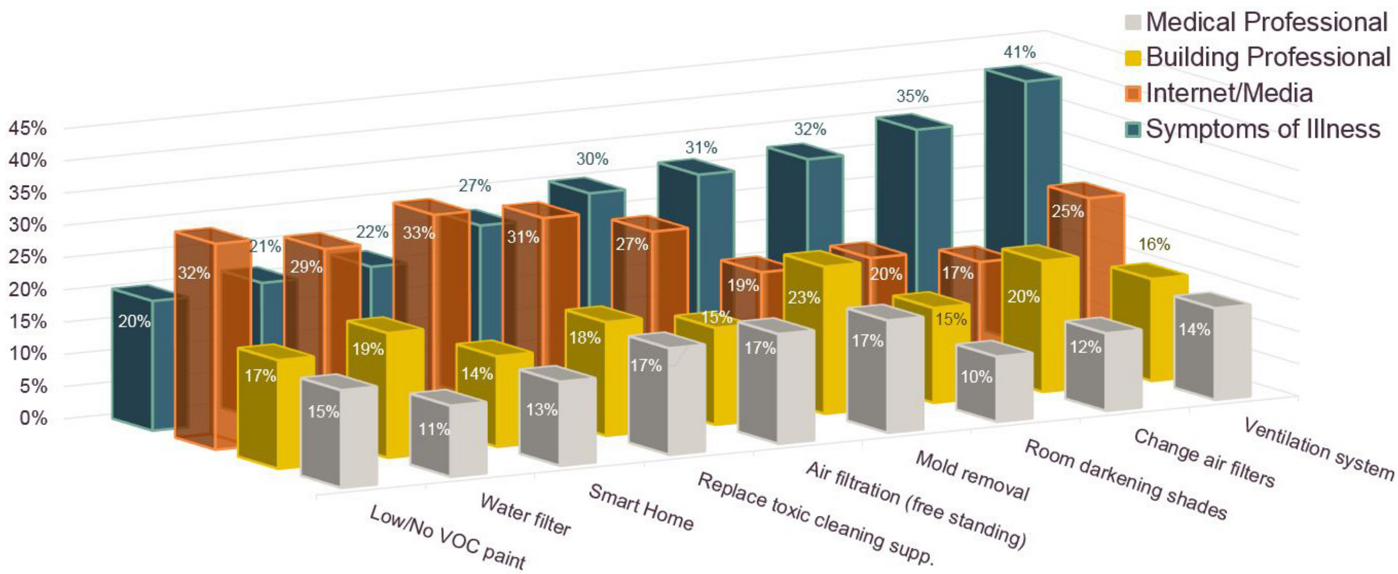
Consumer Motivation and Knowledge

Results from our surveys also reveal the personal, or specific, nature of most households' healthy housing concerns. Among homeowners, for example, the most common reason cited for exploring remediation steps was that a household member had developed physical symptoms. Indeed, symptoms were cited by between 20 and 40 percent of owners reporting that they completed or planned to undertake popular projects, indicating that healthy home remodeling is often a response to real or perceived medical needs (**Figure 7**).[5] This finding was also consistent with input from industry professionals. As Janice Costa, editor of Kitchen & Bath Design News, explained, "most consumers are not requesting a 'healthy home' in a generic sense, but rather, they usually have some specific health concern that is driving their interest in healthy home objectives."

Our survey results also showed that, depending on the issue, internet/media/television was another commonly cited source through which households became aware of healthy home issues and remediation steps. Examples of such actions include using low-VOC paints and water filters, and replacing toxic cleaning supplies, as well as the purchase of smart home products to aid health objectives. The internet and Google, more specifically, were mentioned most frequently as "favorite" or "most trusted" resources, followed by HGTV. Advice from a building professional was cited less commonly as a source of knowledge, followed by advice from medical professionals—which was on average cited no more frequently than advice from a friend.

FIGURE 7: SYMPTOMS OF ILLNESS AND MEDIA/INTERNET DRIVE ACTION MORE THAN ADVICE FROM INDUSTRY PROFESSIONALS AND DOCTORS

SHARE OF HOMEOWNERS REPORTING INFLUENCES OF PLANNED OR COMPLETED HEALTHY HOME PROJECTS



Note: The specific question was, "Among the following healthy home actions your household has taken, plans to undertake, or would like to undertake, please indicate how the related health issue(s) and/or risk(s) came to your household's attention."
Source: Farnsworth Group and Joint Center Healthy Homes Survey, August 2018.

Remodeler Perspectives

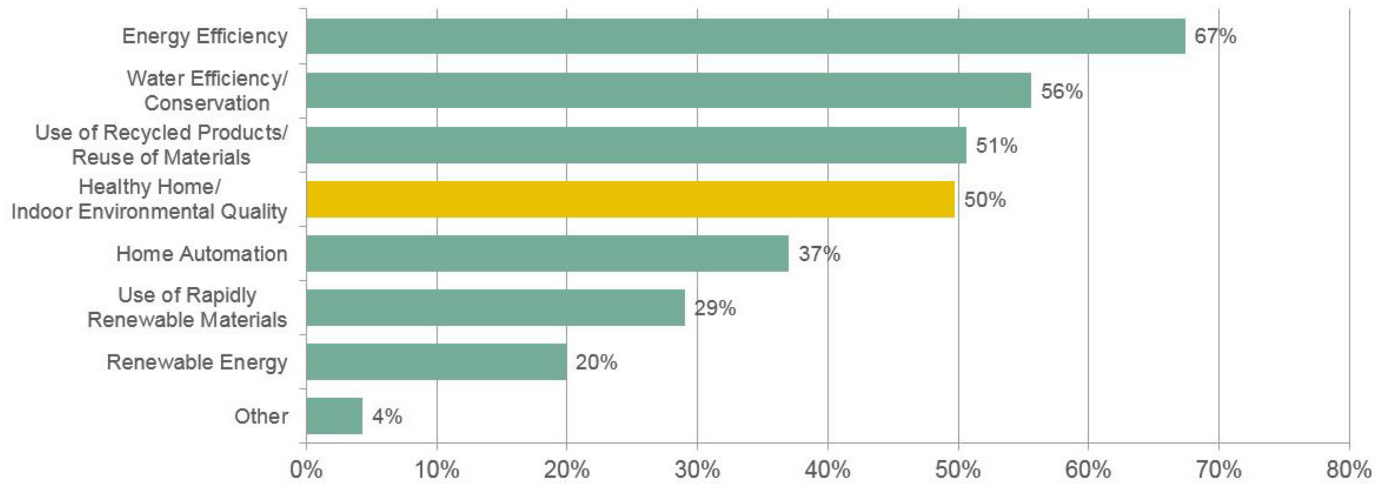
Remodeler Engagement Appears Steady

Although consumer interest in healthy housing has been rising, our surveys indicate that remodeler engagement in this segment has been holding steady at best. When asked to describe remodeling projects and/or products that their company has installed in recent years, only about half of remodeling firms in 2018 reported installing "healthy home" or "indoor environmental quality" products/projects, and this share was virtually unchanged from 2014.[6] To put this statistic in context, it was slightly below the shares reporting work specifically in the energy efficiency segment (67 percent) and in water efficiency/conservation (56 percent) (**Figure 8**). However, it exceeded the shares of firms engaged in installing home automation products (37 percent), rapidly renewable materials (29 percent), and renewable energy (20 percent). These results suggest that, to some extent, healthy home products and projects have already become standard in the industry. Yet at the same time, there remain many remodelers who either do not engage in this segment at all, or else are not aware that they (or their subcontractors) are already using healthy home products. In any case, the fact that the share of engaged contractors has not changed at all in four years suggests that while consumer interest may be growing, remodelers are apparently not yet widely engaged in seizing upon this growth. By way of contrast, contractor engagement in the home automation market was on the rise, increasing from 29 percent engagement in 2014 to fully 37 percent engagement in 2018.

Among the half of remodeling firms that reported being engaged in healthy home projects in 2018, most did not focus exclusively on this niche. These firms reported that, on average, 28 percent of their home improvement revenue over the past year was from installing products or employing techniques that help clients achieve healthy home objectives, although the actual shares ranged from minimal engagement to exclusive focus (**Figure 9**).[7] Most remarkably, only a very small share (less than 20 percent) of engaged remodelers reported that more than half of their projects included a healthy home objective or technique—suggesting that remodelers by and large are either not installing these projects/products as a matter of course, or else are not very focused on healthy home objectives per se as part of their remodeling process.

FIGURE 8: HALF OF REMODELERS REPORTED INSTALLING HEALTHY HOME PROJECTS IN RECENT YEARS

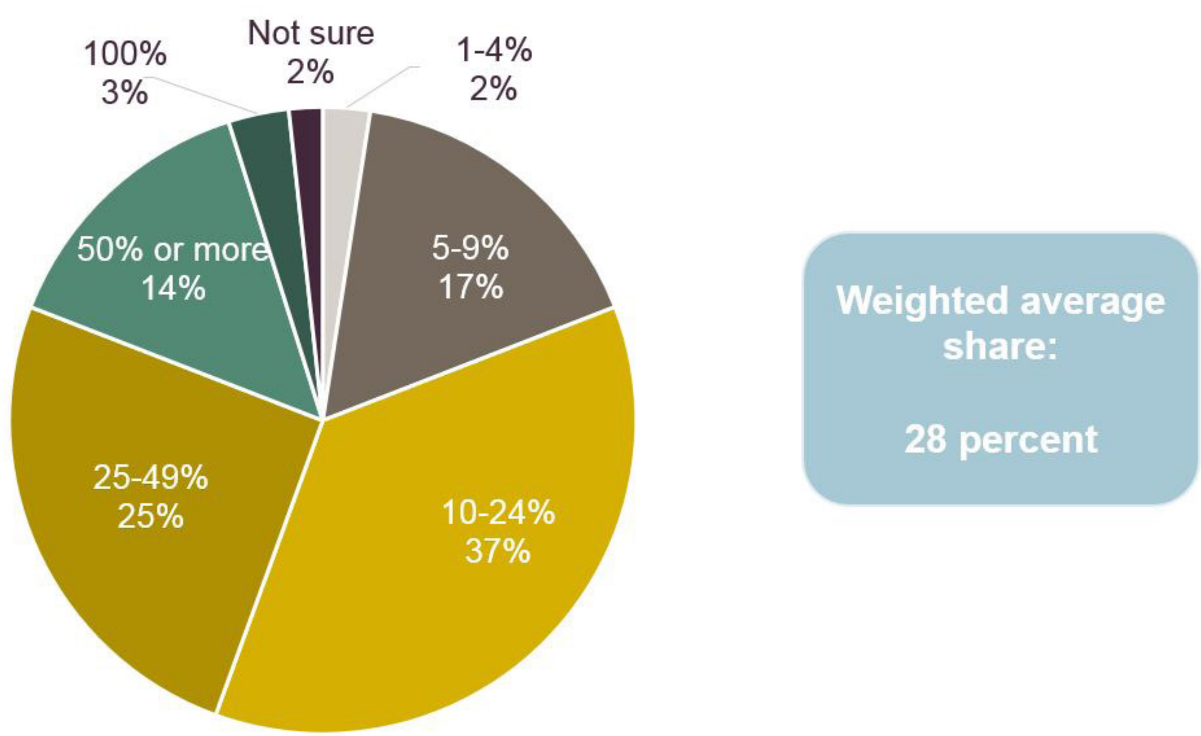
SHARE OF REMODELERS REPORTING INSTALLATION OF PROJECTS OR PRODUCTS IN RECENT YEARS



Notes: Respondents were asked, "Which of the following categories describe remodeling projects and/or products that your company has installed in recent years?" Sample size is 579.
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Survey, August 2018.

FIGURE 9: EXTENT OF REMODELER ENGAGEMENT VARIES WIDELY

OVER THE PAST YEAR, FOR ABOUT WHAT SHARE OF YOUR HOME IMPROVEMENT PROJECTS (ON A DOLLAR BASIS) DID YOUR FIRM INSTALL PRODUCTS OR EMPLOY TECHNIQUES THAT HELP CLIENTS ACHIEVE HEALTHY HOME OBJECTIVES?



Note: Out of 288 remodeling contractors who reported being engaged in the healthy home/indoor environmental quality market in recent years.
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Survey, August 2018.

Common Healthy Home Projects

When asked what products they have installed in recent years, over two-thirds of remodeling firms engaged in this niche cited use of non-toxic paints and finishes (**Figure 10**). In addition, 60 percent reported installing other non-toxic building materials. These responses are consistent with general feedback we've heard from industry professionals that safer products, particularly non-toxic paints and finishes, but also some wood products, are already becoming standard offerings in the industry. Other popular projects installed by more than half of engaged remodeling firms included water filtration systems, duct sealing projects, and whole-house air filtration projects. Meanwhile projects completed by half or nearly half of engaged firms included noise insulation materials, moisture-control membranes, and dust-reducing tools/techniques.

Figure 10 provides a full listing of the products/projects that contractors were asked about. Another key finding was that smart home products were installed by 42 percent of firms engaged in the healthy home space—a higher share than among contractors overall (37 percent)—suggesting that these products may be particularly useful when pursuing healthy home project objectives.

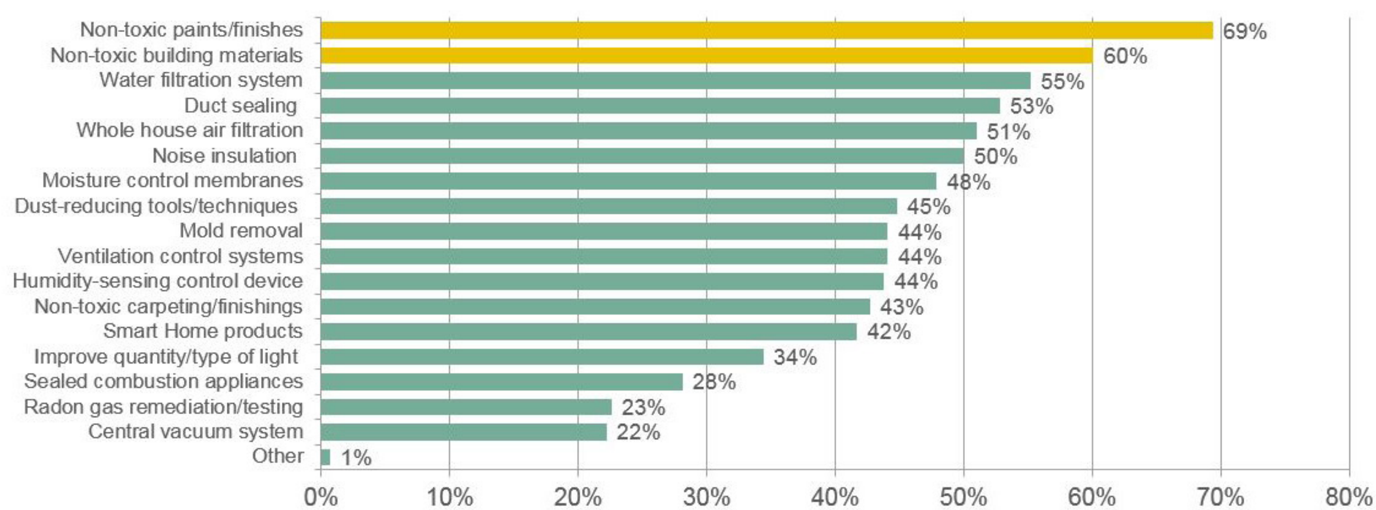
Rising Awareness and Knowledge

While remodelers' reported engagement in the healthy homes niche did not budge over the past four years, contractors nonetheless appear to be growing more comfortable talking about healthy home projects compared to four years ago. When asked, "How confident are you advising clients on home improvement projects involving healthy home concerns?" 78 percent of contractors working in the healthy homes space indicated that they were "extremely" or "very confident" in 2018 (**Figure 11**). This marks a sizable increase from 2014 when only 52 percent reported being extremely or very confident advising clients on healthy housing issues. Moreover, when asked who generally starts the conversation about installing healthy home products/projects, nearly half of remodeling firms active in this space indicated that their firm "routinely initiates this conversation" (46 percent). Another 36 percent cited the customers as frequently starting the conversation, while 15 percent cited customers as only occasionally starting a conversation on this topic (**Figure 12**).

This ability to communicate confidently with clients about healthy housing issues appears to be a valuable skill, as customers are also asking more and better questions. For example, 85 percent of remodelers engaged in this space reported that homeowners are

FIGURE 10: 'NON-TOXIC' PRODUCTS ARE MOST FREQUENTLY INSTALLED BY CONTRACTORS ENGAGED IN HEALTHY HOME REMODELING

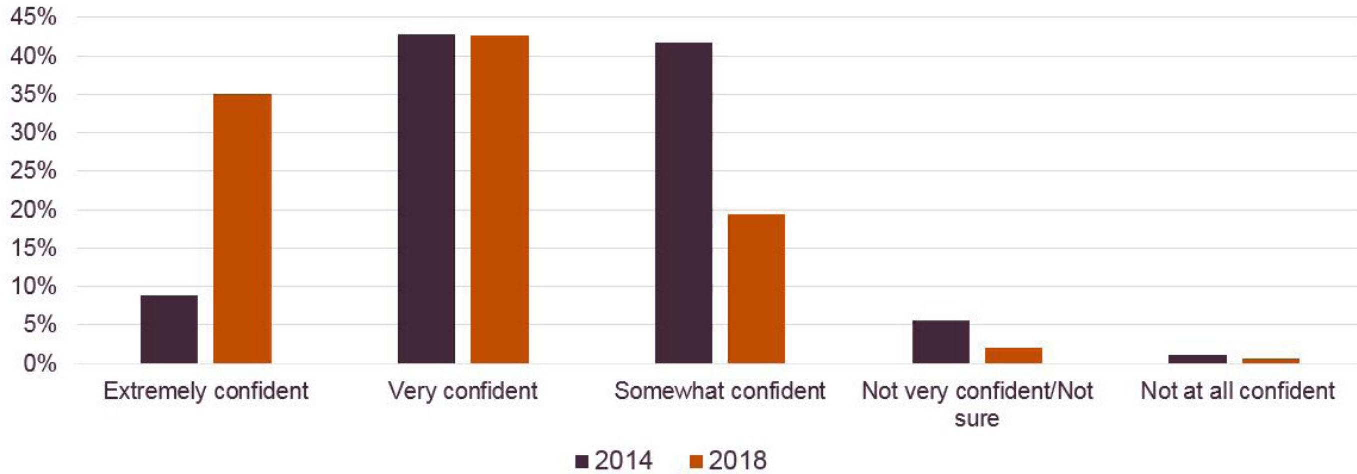
SHARE OF CONTRACTORS ENGAGED IN HEALTHY HOME REMODELING REPORTING INSTALLATION IN RECENT YEARS



Notes: Respondents engaged in healthy homes projects were asked, "Which of the following categories describe remodeling projects and/or products that your company has installed in recent years?" Sample size is 288.
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Survey, August 2018.

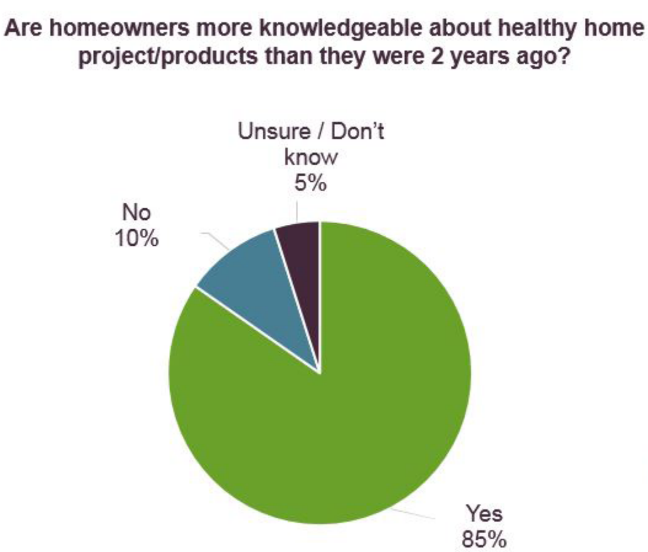
FIGURE 11: REMODELERS ACTIVE IN HEALTHY HOME MARKET HAVE GROWN MORE CONFIDENT DISCUSSING CONCERNS WITH CLIENTS

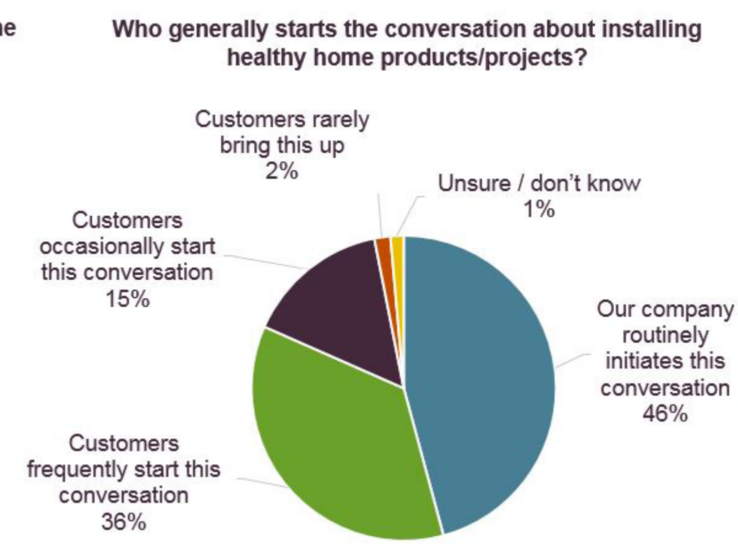
HOW CONFIDENT ARE YOU ADVISING CLIENTS ON HOME IMPROVEMENT PROJECTS INVOLVING HEALTHY HOME CONCERNS?



Notes: Out of 180 and 288 remodeling contractors who reported being engaged in the healthy home/indoor environmental quality market in 2014 and 2018, respectively. Examples of relevant consumer concerns given in the survey question included: "indoor air quality, minimizing exposure to toxic building materials, water quality issues, preventing indoor combustion pollution, noise insulation/healthy lighting, etc."
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Surveys, 2014 and 2018.

FIGURE 12: CONSUMERS ARE MORE KNOWLEDGEABLE TODAY, OFTEN BEGIN THE CONVERSATION





Note: Out of 288 remodeling contractors who reported being engaged in the healthy home/indoor environmental quality market in recent years.
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Survey, August 2018.

more knowledgeable about healthy home project/products than they were two years ago (**Figure 12**). When asked where they thought consumers were learning about healthy home projects or products, most remodeling firms (78 percent) cited internet research, followed by word-of-mouth/referrals from previous customers (67 percent), and HGTV/home improvement shows (56 percent). As one remodeling firm expressed, “Everyone is looking on the internet and finding new ideas. Customers kind of know what they want, and we have to direct them. More clients discuss allergies in relation to the work.” To manage the shift, some companies are taking charge of the conversation, offering healthy home content online as an educational and marketing tool, or including it as part of a sales pitch. For example, one in four firms cited “our marketing or sales efforts” as a primary source of greater client knowledge in this area as they actively guided consumers through this learning process.

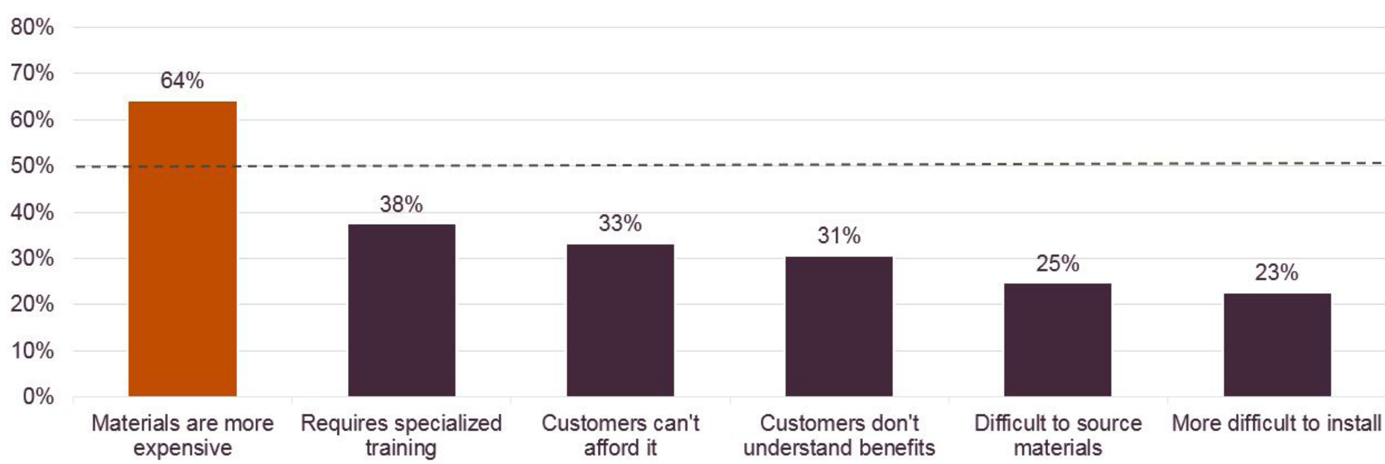
Yet another example of engaged contractors’ increasing familiarity with these issues is the fact that an increasing share reported being aware of certification programs related to healthy housing objectives, even if they are not yet participating in them. As of 2018, fully 65 percent of firms engaged in healthy home remodeling cited awareness of certification programs specifically related to healthy housing issues/techniques, other than lead paint removal training programs—up from 40 percent in 2014. Surprisingly, however, the share citing participation in these programs did not increase; only 53 percent of firms engaged in healthy housing projects reported that an employee or subcontractor had participated in a training/certification program focused on healthy housing—unchanged from four years earlier.

Remodelers Reap Benefits of “Healthy Home”

With contractor awareness and confidence clearly increasing, why is contractor engagement still on the low side? The most common difficulty contractors cited was that materials were more expensive (64 percent), followed by the need for specialized training (37 percent), and affordability constraints (33 percent) (**Figure 13**). As one remodeler put it, “Price range is usually the downfall. As a business owner I often end up eating the cost and losing some of my profits to upgrade to healthier materials because I feel it’s the right thing to do.” In addition, 31 percent of firms engaged in this niche cited customers as not understanding the benefits of healthy home projects, while 25 percent cited difficulties sourcing relevant materials.

FIGURE 13: ADDED MATERIALS EXPENSE IS #1 CONSTRAINT FOR CONTRACTORS ON HEALTHY HOME REMODELING

WHAT ARE THE MAIN CONSTRAINTS OR PAIN POINTS OF OFFERING HEALTHY HOME PRODUCTS/PROJECTS, IF ANY?

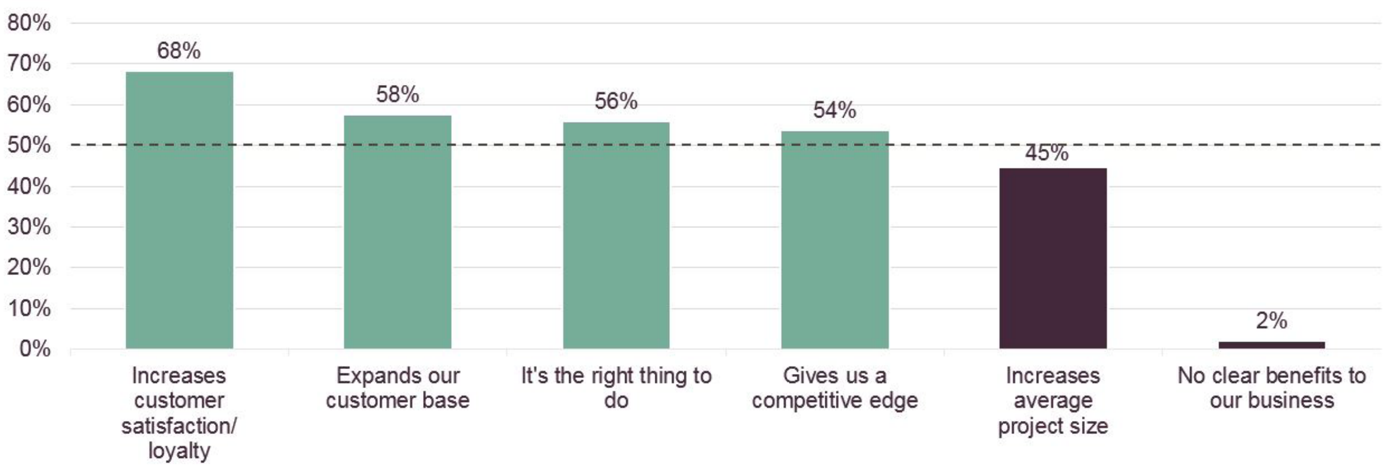


Note: Out of 288 remodeling contractors who reported being engaged in the healthy home/indoor environmental quality market in recent years.
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Survey, August 2018.

At the same time, however, even greater shares of engaged remodeling firms reported reaping multiple benefits from offering healthy home projects (**Figure 14**). Among the most commonly cited benefits were increased customer satisfaction/loyalty (cited by 68 percent of respondents) and an expanded customer base (58 percent), in addition to a sense of pride over doing the "right thing" (56 percent). More than half of firms engaged in healthy housing activities also cited healthy housing offerings as giving them a competitive edge (54 percent). As one remodeler put it, "Every customer for whom we installed healthy living products has called to thank us for suggesting those products to them and passed our name on to their friends and coworkers, which has brought increased sales and repeat business for us."

FIGURE 14: OFFERING HEALTHY HOME PROJECTS INCREASES CUSTOMER SATISFACTION, LOYALTY

WHAT ARE THE MAIN BENEFITS TO YOUR BUSINESS OF OFFERING HEALTHY HOME PRODUCTS/PROJECTS?



Note: Out of 288 remodeling contractors who reported being engaged in the healthy home/indoor environmental quality market in recent years.
Source: Farnsworth Group and Joint Center Remodeling Contractor Healthy Homes Survey, August 2018.

Summary Findings

Consumer interest in healthy housing and healthy home remodeling has risen over the past four years. Perhaps as a result, remodeling contractors are also growing more skilled at discussing healthy home products and projects with their clients; however, this market niche still appears to be in an "early growth" stage. The fact that contractor engagement did not increase over the past four years suggests that either firms are not becoming more active in this space, or else they are not aware that they are already using healthier products—and they are not communicating this information to clients. In either case, healthy home objectives could be more clearly defined and acknowledged throughout the remodeling process, from marketing and sales to completed project follow-up. The potential for greater active, or intentional, participation on the part of remodeling contractors is particularly exciting when considering their longstanding engagement in promoting energy efficiency objectives. As Tom Kelly, president and owner of Neil Kelly Corporation, expressed: "Five years ago there was a strong focus on energy efficiency, but now that energy tax credits are expiring, and energy costs have declined, the opportunity may exist to rebrand or reposition energy and sustainable activities toward the health-minded consumer." When viewed in this light, the future appears to be bright for this market niche. Still, it will apparently take more time before healthy housing—broadly speaking—becomes a mainstream strategic objective for the industry.

A major positive sign for growth in this niche is that remodeling firms currently engaged in it are more likely to cite its benefits than its constraints. These benefits, including increased customer satisfaction, highlight the importance of listening to customers, particularly when they may come to the table with unique personal stories or symptoms. Contractors should be aware that young consumers are more likely to report concerns over these issues, as are those with children and with greater levels of education. Renters also express greater concerns than owners over healthy housing, even while they possess more limited ability to remedy issues. In responding to households' diverse needs and demands, contractors will need to find ways to overcome multiple barriers, including higher costs, the need for increased training, and ongoing confusion over the health benefits and payoffs for specific projects.

While only a small share of remodeling contractors focus heavily on these issues at present, this situation could change, particularly if more incentives and regulations are put in place to encourage healthier indoor environments.[8] Yet even barring those changes, at least one optimistic remodeler was enthusiastic about the prospects for future growth: "Ten years from now this niche will have matured and solidified and it will be an integrated part of how homes are built and renovated." No matter the pace of this progress, this niche appears likely to grow—echoing our own collective progress in understanding what makes a "healthy" home.

Finally, while healthy home remodeling is a broad concept, encompassing many potential topics and issues, the importance of indoor air quality to growth in this niche cannot be overstated. As Tom Kelly explained, "The single biggest category is indoor air quality, which has appeal for families and mothers who want to make sure remodeling products are healthy for their kids." Questions of material toxicity and off-gassing will likely also increase as greater numbers of consumers recognize the lack of effective regulation in this area, and the need to prevent indoor emissions in the first place. Yet our surveys also show that consumers remain most concerned over several longstanding, basic IAQ hazards, such as mold/moisture and household dust.

As consumers continue to progress in their understanding and awareness of these and related issues, remodelers, as well as manufacturers and distributors, will likely all continue to experience pressure from clients demanding solutions to a host of common healthy housing concerns. Companies that can educate their teams, and add to or even initiate the conversation about healthy housing issues with clients, either in person or online, would seem particularly well poised to realize opportunities for future growth in this market.

Future Research

Finally, while this brief argues that healthy home remodeling appears to be in the early stages of growth, there are a host of related factors that could influence the timing and trajectory of future market growth that have not been mentioned at length. Among these are the federal regulatory environment for building product manufacturers, state and municipal building and remodeling codes, and the rise of voluntary industry standards promoting healthier indoor products, as well as voluntary standards certifying "healthier" built environments (e.g., Fitwell, the WELL Building Standard). Numerous industry advocates, including some private companies but also many not-for-profit groups (e.g., Healthy Building Network, International Living Future Institute, etc.), are operating in this space, as are a host of competing "healthy" product certifications—including Greenguard, Cradle-to-Cradle, Green Label, Green Seal, etc. There are also numerous product guides and remodeler certifications from which firms can choose to educate themselves in the market for healthy homes.

Any of these factors has the potential to change the trajectory of growth in the healthy home remodeling market. With this broader context in mind, further research in this area could explore additional questions: To what extent are government actions—regulations and incentives—influencing growth in this market, and what potential impact could they have if the political landscape changes? What types of educational and advocacy efforts (by both non-profits and private companies) appear to be most fruitful in pushing the industry forward on healthy home issues? What strategies are remodeling product manufacturers and distributors using to effectively grow in this space, and where do they face their biggest obstacles? And finally, what healthy home remodeling product categories appear to bear the most promise for growth in the coming years?

Answers to these questions could help us to better understand the trajectory of growth in healthy home remodeling. They could also help the traditional remodeling company to understand better where there are opportunities in the healthy home remodeling market, and how to best focus their efforts as they prepare to seize upon future momentum in this market niche.

Endnotes

1. As Amazon states on their responsible sourcing web page, their restricted chemicals list will be "expanded to additional brands, product categories, and geographies over time." "Responsible Sourcing," accessed January 3, 2019, https://www.aboutamazon.com/sustainability/responsible-sourcing.

2. Reflects categorizations of housing quality (or "housing adequacy") defined by the U.S. Department of Housing and Urban Development. "Subject Definitions," accessed January 3, 2019, https://www2.census.gov/programs-surveys/ahs/2017/2017%20AHS%20Definitions.pdf?#.

3. Households having children with asthma cited IAQ as a source of concern at a significantly higher rate: 77 percent in 2018, compared to 70 percent among all other households.

4. Differences are cited in the text only if statistically significant after performing a chi-square test at the 10% level of significance. It's also notable that these findings resemble those from 2014: in both time periods, indoor air quality ranked as the number one source of concern, with the share of households citing IAQ increasing from 71 percent in 2014 to 75 percent in 2018. While the question about pests was not asked in 2014, the next most commonly cited source of concern that year was water quality (36 percent of respondents), followed by safety or comfort of the structure (28 percent), and harmful chemicals/materials in the home (25 percent).

5. Popular projects are defined here as those that were completed or planned by a third or more of concerned homeowners. See **Figure 6** for a list of these projects.

6. Examples given of "healthy home" products/projects included "low- or no-VOC paints/adhesives/finishes, air filtration/ventilation, water filtration, sealed combustion appliances, etc."

7. In the same survey question, examples of "healthy home objectives" included "improved indoor air quality, fewer chemicals in the home, cleaner water, better noise insulation/healthier lighting, etc."

8. An example is California's impending requirement for all newly constructed residential buildings to be equipped with a MERV 13 or higher air filter, a major upgrade which is likely to impact the air filtration market. "2019 Building Energy Efficiency Standards - California Energy Commission," n.d., accessed December 14, 2018, https://www.energy.ca.gov/title24/2019standards/index.html.