Report on Evaluation Findings

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TERMINOLOGY

Throughout this report a number of terms are used that may mean different things in different contexts. The below definitions are provided to minimize any confusion of how terms are used within this report.

Corrections. This includes actions taken to address and/or fix environmental issues within rental housing. Another term for corrections is often 'remediations'.

Environmental hazards. Hazards are defined as issues within rental units that **can** pose a threat to tenants' health and wellbeing. This may include air quality issues (e.g., asthma triggers, breathing issues), carbon monoxide, lead paint, mold, radon, smoking (e.g., tobacco, marijuana), temperature (e.g., too hot, too cold), ventilation, water leaks/damage, and water quality.

Inspections. Inspections include actions taken within rental units to identify potential environmental hazards. This may include actions such as observations and testing.

Landlords. Individuals who rent out housing. This may include large multi-unit landlords, small mom and pop landlords, and also property managers or property management agencies that are responsible for overseeing rental units. Throughout this report, the term 'landlord' does not imply gender in any way.

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LANDLORD ENGAGEMENT FOR HEALTHY HOUSING EVALUATION: EXECUTIVE SUMMARY

Evaluation

Beginning in 2022, Partnerships For Health worked with the Healthy Housing Evaluation Workgroup to implement a formative, mixed methods evaluation to better understand the progress landlords have been making in Maine to prevent and address environmental hazards within their rental units, as as well the effective methods to reach and support landlords with these efforts.

What is the most efficient way to reach landlords and what is the most effective messaging to move them towards actions?

The evaluation highlighted three strategies to reach landlords to promote healthy rental housing:

- 1. Engage landlords through associations and other professional groups
- 2. Identify and use local landlord champions
- 3. Create a statewide registry of landlords

Effective messaging for landlords should highlight prevention as a cost-saving activity to maintain healthy rental housing. Offering incentives or financial support for landlords to prevent and address environmental hazards could further move them towards action. All messaging should be clear, concise, and easy for landlords to act on.

What progress are landlords making towards desired action steps?



INTRODUCTION



BACKGROUND

Healthy home environments. A person's health is not only impacted by diet, physical activity, and genetics but also where they live (Krieger, 2010; World Health Organization, 2022). The World Health Organization lists housing as one of the most important non-health factors that can affect a person's health outcomes (World Health Organization, 2022). Poor quality housing contributes to the spread of infectious diseases as well as chronic conditions (Krieger & Higgins, 2002). Housing and home environments with issues such as water leaks, poor ventilation, secondhand smoke, lead paint/dust, unclean carpeting, and pests can increase mold, mites, and other allergens that have negative impacts on human health (Braveman, Dekker, Egerter, Sadegh-Nobari, & Pollack, 2011). Deteriorating buildings and unkempt housing can also increase environmental contaminants which can lead to chronic health issues for children and adults (Bailey, 2020).

Rental housing in Maine. In 2020, Maine had an estimated 746,793 housing units, 569,551 (76.3%) of which were occupied (United States Census Bureau, 2020). Of those occupied, over a quarter (27.1%) were occupied by renters (ibid.). The type of rental unit varies. Some rental units in Maine can be categorized as large, multi-unit purpose-built buildings. These are sometimes owned and/or managed by property groups not located within the state, which can impact the unit maintenance. Smaller buildings with few units or a single-family home are often owned and managed by local individuals.

Over half of all housing units were built before 1979, and 23.8% of housing units were built before 1939 (United States Census Bureau, 2020). Many rental units in Maine are often older homes subdivided into several units. This housing is more likely to have issues with pests (e.g., cockroaches, rodents, etc.) and air quality (e.g., dust mites and other airborne allergens) (American Lung Association, 2022). Lead is also a significant problem in older homes. Though lead was banned from use in paint in 1978, as of 2018, 87% of Maine children with lead poisoning lived in housing built before 1950 (Maine Childhood Lead Poisoning Prevention Unit, 2019).

Landlords' role in maintaining healthy homes. Title 14, Part 7, Chapter 710 of the Maine statute details a landlord's obligations to their tenants (Maine State Legislature, 2009). By renting out a housing unit in the state, a landlord is formally stating that the unit is 'fit for human habitation' which means that the unit has drinkable water; is adequately heated in the winter (minimum of 68 degrees) with a safe heating system; does not have any pest infestations (including insects, rodents, and mites) or water leaks; maintains the safety of the tenant (no broken windows and lockable doors); has functioning smoke and carbon monoxide detectors; and has running water, hot water, and electricity (Maine State Legislature, 2009; Pine Tree Legal Assistance, 2022).

For a landlord and/or property manager, one of the primary purposes of rental housing is to generate income and is not necessarily to provide and maintain a home absent of environmental triggers. If a child shows high blood lead levels, the landlord is ordered to remediate the lead hazard(s) within the unit (Pine Tree Legal Assistance, 2022). If the lead hazard is not remediated, the landlord can be fined (ibid). Testing for environmental issues within rental housing (e.g., radon, lead dust, etc.) is offered by the Maine Centers for Disease Control and Prevention (Maine CDC) at no cost (ibid). While landlords are

required to test for radon within rental units and notify tenants of the results (Radon Testing, 2022), if high levels are detected, the landlord is not required to remediate (Pine Tree Legal Assistance, 2022). To address environmental issues, tenants could take legal action against their landlord, though a study in Las Vegas found that there was no statistical difference in landlord response between a maintenance request or a lawsuit for the same issue (Pine Tree Legal Assistance, 2022; Bertran, 2018).

Landlord engagement. While landlords play a large role in maintaining healthy rental housing, the ability to engage with them to support these efforts can be challenging. The literature suggests that using financial incentives to engage with landlords has been successful, primarily around encouraging landlords to accept low-income renters. For example, MaineHousing provides signing bonuses of up to \$750 directly to landlords for every housing unit rented through the Housing Choice Voucher program (Maine Housing Authority, 2022). Though effective in reaching landlords in some capacity, there is little research on the effectiveness of incentivizing landlords to inspect for and remediate environmental issues within rental housing (Ambrose, 2015; Astmarsson, Jensen, & Maslesa, 2013).

HEALTHY HOUSING EVALUATION WORKGROUP

Many families in Maine live in rented housing. Landlords are critical partners when ensuring the environmental health of these living areas. A number of state and community-based agencies (as listed in Table 1) are focused on various environmental issues and have been working to engage landlords and property managers throughout the state. While their specific focus area may differ, collectively, they strive to support landlords and property managers in maintaining healthy rental housing, including the prevention and correction of issues, when needed (e.g., mold, moisture, air quality, lead, radon, secondhand smoke, pests, etc.). In addition, they share the common challenge of not being able to reach and/or engage landlords. Under the leadership of the Maine CDC Asthma Program, these partners came together to share resources and engage in an evaluation effort aimed at deepening their individual and collective knowledge of landlords' current activities and how best to engage them. Partnerships For Health (PFH) provided evaluation expertise in developing, implementing, and analyzing the evaluation.

 Table 1. Healthy Housing Evaluation Workgroup Partners

PARTNER
Maine CDC Asthma Prevention and Control Program
Maine CDC Childhood Lead Poisoning Prevention Program
Maine CDC Environmental and Occupational Health Program
Maine CDC Tobacco Prevention and Control Program
Maine CDC Radon Control Program
Maine Department of Agriculture, Conservation, and Forestry Pesticide Program
Maine Housing Choice Voucher Inspection Services
Maine Indoor Air Quality Council
Maine State Housing

EVALUATION



STUDY DESIGN

Through a collaborative process with the Workgroup, a formative, mixed methods evaluation study was developed to answer the following questions:

- 1. What progress are landlords making towards desired action steps?
- 2. What is the most efficient way to reach landlords?
- 3. What is the most effective messaging to move landlords towards actions?

Data collection activities included key informant interviews with each Workgroup member and individuals with experience with landlords; a survey among landlords and property managers throughout Maine; and insight and recommendations from media experts based on the findings. Overall, these methods were aimed at understanding the progress landlords have been making to prevent and address environmental hazards within their rental units, as well as the effective methods to reach and support these efforts. The evaluation aimed to explore various environmental hazards that may occur in rental housing:

- Air quality and ventilation
- Lead paint
- Mold
- Pests
- Radon
- Smoking and secondhand smoke
- Water leaks
- Water quality

This evaluation plan and the associated tools were submitted for IRB determination to the University of Southern Maine Office of Research Integrity and Outreach. The evaluation was determined to not meet the criteria for human subjects research (Protocol #090222-91).

WORKGROUP ENGAGEMENT

Engaging with partners during the evaluation process enhanced the quality, utility, and relevance of evaluation outcomes. Leveraging their diverse perspectives, expertise, and resources ensured that the evaluation was meaningful and actionable. Beginning in Spring 2022, the Workgroup met virtually on a monthly basis to determine the evaluation questions, study design, and overall evaluation approach. A collaborative review process was used to develop evaluation tools and determine data collection outreach methods. Workgroup members supported the implementation of the evaluation with outreach to their networks of landlords and organizations who work closely with landlords.

THEORETICAL FRAMEWORK

All phases of the evaluation were guided by the Transtheoretical Model of Change, as outlined in Figure 1. The model identifies five critical stages of behavioral change that reflect intentional decision-making (Boston University School of Public Health, 2022). The stages include: precontemplation, contemplation, preparation, action, and maintenance (ibid).

Figure 1. Transtheoretical Model of Change



Individuals who are not yet aware that their behavior, actions, or lack of actions may be problematic are said to be in the precontemplation stage. With recognition of the issue and the step(s) needed to address the issue, they enter the contemplation stage, where they may consider the pros and cons of behavior change. When an individual has set their intention to take action to address the issue, they have entered the preparation stage. During the action stage, the individual begins taking small steps toward addressing the issue and changing their behavior. The maintenance stage is typically reached when someone has successfully sustained their behavior and intends to continue to work on the behavior change (Boston University School of Public Health, 2022). Though structured as steps, the model is not linear. Individuals may skip stages or move back and forth between stages before advancing (ibid). Understanding which stage of the model an individual is currently in can help target interventions to help achieve successful changes.

Using this theoretical framework, the evaluation focused on defining landlords' stage of behavior change in terms of inspecting and correcting environmental hazards. Landlords' position within the model is based on their current knowledge of environmental issues within their rental units; the steps they have taken to address any issues; and their plans for continued action.

DATA COLLECTION

Data for the evaluation was collected through multiple channels.

Workgroup Interviews

In September 2022, 8 Workgroup members (as shown in Table 1) participated in interviews with the Evaluation Team to articulate:

- Their experiences with landlord engagement in the past.
- The actions their program would like landlords to take.
- Their perspectives on the challenges and successes of landlord engagement.
- Their recommendations for engagement strategies moving forward.

Landlord Engagement Experience Interviews

Beginning in June 2022, the Evaluation Team worked with the Workgroup to identify individuals who had successfully engaged in prevention efforts with landlords. The Evaluation Team and partnering programs brainstormed a list of potential interviewees and used a brief prioritization survey to identify the top 10 choices for interviews. The Evaluation Team began recruiting for interviews in November 2022. In total, 2 interviews were conducted. The interviews focused on identifying the characteristics that made the engagement successful and recommendations for future engagement strategies.

Landlord and Property Manager Survey

In November 2022, the Landlord and Property Manager Survey was launched electronically via SurveyMonkey. The survey aimed to better understand the general characteristics of rental units in Maine; landlord progress on inspecting and addressing various environmental issues within rental housing; and effective communication and outreach techniques for landlords.

Recruitment. The survey was launched using various outreach methods.

- *Conferences/Events.* The Maine CDC Asthma Program and the Maine Indoor Air Quality Council attended the November 2022 Maine Affordable Housing Coalition annual conference. They distributed a postcard that described the survey and included a QR code to link to the survey.
- Landlord Associations. The Evaluation Team worked with the Workgroup to develop a list of town and district level landlord associations. The Evaluation Team developed outreach and recruitment materials to invite associations to share the survey with their members in various ways. Templates were provided for direct email outreach; Facebook and social media posts; and newsletter blurb.
- *Direct Mailing.* The same postcards developed for survey distribution at conferences and events were mailed out to landlords and property managers using a database of physical addresses the Evaluation Team obtained in 2017 for previous evaluation work¹.
- *Email Blast.* A Workgroup member shared the database of the 2022 Maine Affordable Housing Coalition conference attendees contact details. Landlord and property managers' email addresses were extracted from the database and used to invite them to complete the survey.

¹ Approval from the client was received.

The survey was active between November 2022 and January 2023. In total, 53 landlords and/or property managers completed the survey. As part of the survey, landlords were invited to participate in a follow-up interview to further share their perspectives on housing inspections and corrections, as well as communication and engagement techniques. However, of the 4 participants who expressed interest in an interview, none could be reached for scheduling.

Landlord and Rental Unit Characteristics. Overall, landlords were based in Maine (98.1%) with an average of 17 years of experience owning and/or managing rental units within the state. Collectively, respondents managed a total of 21,170 multi-family units and 270 single family units. These units were distributed across Maine with the majority (67.9%) being located in Cumberland County.

There were two primary types of landlords who participated in the evaluation – property managers and property owners:

- Property Managers. Half (50.9%) of the survey participants identified themselves as property managers responsible for overseeing the overall management of housing properties through an agency. On average, these property managers had approximately 14 years of experience (range: 4 39 years). Presently, they were responsible for managing an average of 844 multi-family units and 25 single-family units. The majority of multi-family units were rented out at subsidized rates.
- Property Owners. The remaining half (49.1%) of survey respondents were individuals who own properties in Maine that they rent out and manage themselves. These property owners had an average of 21 years of experience (range: 4 50 years). Property owners who rent out their units tended to have fewer properties than property managers. On average, property owners rented out around 36 multi-family units and 2 single-family units. The majority of property owners (84.6%) rented out properties in Cumberland County. Property owners' rental units were mostly multi-family units that were rented at a market rate.

Media Experts' Reflections and Recommendations

The Evaluation Team presented the preliminary evaluation findings to Rinck Advertising in order to gather their insights and viewpoints. This encompassed their feedback on successful messaging approaches and resources for landlords, along with their ideas on potential tactics for enhancing landlord engagement further.

DATA ANALYSIS

Qualitative Analysis

Transcripts from the Workgroup Interviews and Landlord Engagement Experience Interviews were uploaded to ATLAS.ti software and an experienced qualitative analyst conducted a deductive analysis (i.e., developed emerging themes or codes from the transcript data). A broad, top-level coding scheme was developed and applied, which allowed the analyst to systematically organize, process, and summarize information while also capturing the breadth of opinions offered by interviewees. In addition, an inductive approach was undertaken to identify additional emerging themes.

Quantitative Analysis

Summary statistics were undertaken to describe respondents' characteristics and type of rental properties they own and/or manage. In addition, descriptive analyses were conducted to identify common environmental hazards inspected and/or corrected as well as their preferred communication channels. Crosstab analyses were conducted based on the environmental factors for which landlords are inspecting and correcting (e.g., air quality, lead, radon, etc.). Thematic analysis was undertaken on the open-ended survey questions regarding barriers and resources for inspections and correction activities.

Triangulation

Qualitative and quantitative data and analysis findings were integrated to provide deeper context and understanding of results.

LIMITATIONS

Sample bias. Landlords have historically been a difficult group to engage. While there are a number of landlord associations in Maine, not all landlords and/or property managers belong to one or other membership groups. In addition, there are many types of landlords (e.g., large management agencies with hundreds of properties and small 'mom & pop' landlords with a few properties). These factors may have influenced a landlord or property manager's decision to be part of an association or to engage with the evaluation. As such, the evaluation results may be biased by the type of respondents who engage. To minimize this bias, the evaluation reached as many landlords and property managers as possible through multiple outreach methods and databases.

Selection bias. Selection bias occurs when the individuals included in an evaluation may not be representative of the broader population. The landlords who participated in this evaluation were primarily reached through their engagement with local landlord associations and/or participation in housing-related events. Given this, it is likely these landlords were already more active in maintaining health rental housing and may not be representative of the greater population of landlords in Maine.

Inherent complexity. Healthy housing and the environmental issues that commonly appear in Maine rental housing are complex topics with many influencing factors. In addition, landlords' inspection and remediation actions may have been influenced by a number of factors that were outside the scope of the evaluation to assess. To minimize the effects of this on the evaluation results, the evaluation collected a mix of information, both quantitative and qualitative, to allow respondents to highlight some of the complexities and influencing factors.

RESULTS: Landlords' Current Behavior

WHAT PROGRESS ARE LANDLORDS MAKING TOWARDS DESIRED ACTION STEPS?

In general, most landlords were taking some desired action steps towards maintaining healthy rental units. For some, this involved inspecting for various environmental hazards within the majority of their units or having a regular routine to inspect for potential issues. Most Maine landlords who participated in the evaluation (over 80%) had taken action to inspect for water leaks/damage and the presence of smoke from tobacco and other sources. In addition, landlords inspected for radon-related issues, as they are legally required to do so. In areas where landlords were not active in inspecting their units (e.g., water quality, air quality, and lead paint), they also reported not having any plans to inspect. As postulated by interviewees, there are numerous reasons why landlords may not be inspecting for these potential hazards: they may not be aware of the potential issue and believe testing is unwarranted; they may not have all the necessary information required for complicated testing processes; they may not know the initial steps to start the testing process. Given this, water quality, air quality, and lead paint where fore avoid the testing process. Given this, water quality, air quality, and lead paint may be areas where partners and programs can target landlords to ensure inspecting for these potential hazards is on their radar.

Fewer landlords have taken corrective actions when environmental hazards were exposed within their rental units. The majority of landlords noted that corrective actions were not needed because issues were not encountered, specifically relating to air quality, water quality, and lead paint. However, the majority of landlords also shared they have not inspected for these potential hazards. Among landlords who have addressed hazards within their units, the majority shared correcting issues relating to pests, water leaks/damage, and smoke damage from tobacco/marijuana use.

INSPECTIONS

Ideal Landlord Behavior

Ideally, landlords could ensure healthy rental units by understanding legal requirements and proactively identifying any potential hazards before issues arise. This is done by inspecting within units for water leaks, smoking and smoke damage, and pests; and testing for less visible hazards, such as lead and radon, as well as air and water quality.

"Doing some scouting in the basement, looking for [hazards], things like that, getting ahead of these problems, instead of letting it get to a point that they have to fix it, because it's so much harder." – Interviewee

"We want them to test..., and then communicate that information... we want them to follow the law and test their units and then communicate that information to tenants." - Interviewee

Landlords could increase their knowledge and understanding of the laws and regulations around healthy rental housing in Maine. For some environmental areas, like radon, landlords are required by law to conduct testing to identify any potential hazards. However, landlords are not always aware of these rules. Interviewees shared that improving this knowledge and understanding, or at a minimum, knowing

where to go to get answers, would help landlords take the actions necessary to maintain healthy rental units.

"So there's best practices... But then I guess secondary to them getting hold of best management practices would be for them to understand the whole legal aspect of where their rights end and their tenants' rights begin." - Interviewee

Current Landlord Behavior

Overall, the majority of landlords (81.1%) indicated that they inspect for at least some environmental hazards within their rental units. For some, this included inspecting their unit(s) for hazards within the past 12 months and for others it involved having a routine inspection schedule. Landlords tended to inspect their rental properties primarily for potential hazards that are outwardly noticeable and/or easy to detect, like water leaks/damage (86.4%) and smoking (81.8%). In addition, 81.8% of landlords inspected for radon, as they are legally required to do so.

As shown in Figure 2, many landlords did not inspect for potential hazards that are based on the quality of the home environment, such as air quality (72.1%) and water quality (58.1%). Interviewees shared a number of reasons why landlords may not be inspecting for air and water quality. First, landlords may not be aware of the process of testing air quality and what they should be testing for. As there is no universal test for indoor air quality (Maine Indoor Air Quality Council, 2023), landlords may not know where to start the process. For water quality testing, interviewees shared that the testing process can be complicated and may require landlords to understand testing nuances between different water systems. Over half of landlords (52.3%) reported they have not inspected for lead paint. Interviewees suspected that landlords may be hesitant to test of lead paint because they don't want to know the results. If there are lead paint hazards within the home, landlords may be on the hook for costly and time-consuming remediation activities. In addition, in areas where most landlords are not inspecting their units (e.g., air quality, lead paint, water quality), landlords also do not appear to have any plans to inspect, and most of the time, have not taken any action steps towards inspections. These inspection results were consistent for both property managers and property owners who rent out their units. While property managers were more likely to have a routine schedule to inspect for potential hazards, both property managers and property owners reported similar areas of inspection.

Figure 2. Landlord Inspection Activities



Inspection Challenges and Mitigating Actions

Tenants. The majority (70.5%) of landlords shared that tenants were the primary challenge in conducting rental unit inspections. Landlords noted that sometimes it was a tenant's own habits and behaviors that had a negative impact on the rental unit. For example, some landlords shared that tenants cause damage to the unit by not following the rules laid out in the lease, causing the landlord to need to inspect and address issues that could have been avoided. In addition, 69.8% of landlords shared that their tenants do not notify them of potential hazards in the unit that would require further inspection.

"Tenant habits are a challenge. Sometimes, it isn't that the tenant is 'difficult' it is that they do not understand their behavioral impact." – Landlord

"I think due to time constraints, we tend to depend on the tenants to tell us when something is wrong." - Landlord

Landlords shared a few ways they have tried to mitigate these challenges with tenants to ensure their rental units can be inspected. Some landlords have met with their tenants to discuss why inspections are necessary and scheduled annual inspections of the unit. Other landlords shared that they work to build a trusting relationship with their tenants to promote open communication about potential environmental hazards.

"I try to maintain positive relations with my tenants and have been lucky enough to have many tenants stay with me for years... I try to address any problems I'm made aware of as soon as possible, very often within 24 hours. I also have a clause in all leases that states that tenants should report any problems they encounter, so that we can be proactive and prepared. I always thank tenants for informing me of issues, so that they feel appreciated, not punished, for reporting problems." - Landlord

Resources. In addition to tenants, landlords shared that resources, primarily labor and costs, have been a barrier to inspecting their rental units. Many (59.1%) landlords shared that they often lack staff to conduct inspections. Some landlords noted they rely on contractors who are not easily accessible to conduct inspections and tests for environmental hazards. Similarly, over half (56.8%) reported lacking the funds needed to inspect their rental units, noting it can be expensive to conduct the testing.

"Outside contractors to test radon, air, and water are not easily accessible. There are very few and usually too busy to come quickly." - Landlord

"Hiring a third party to do inspections (of any kind) can be cost prohibitive." - Landlord

To alleviate some of the resource barriers to inspections, landlords noted their progress with installing relevant monitors within in their rental units to detect issues such as carbon monoxide (CO2) and radon. Other landlords shared that they try to build relationships with local handymen or maintenance providers who could support the inspection process if needed.

"Installed permanent CO2 monitors & radon detectors." - Landlord

"I have access to a handyman/builder who is multi-talented..." - Landlord

The Appendix provides an overview of landlords' inspection behaviors on specific environmental hazard areas.

CORRECTIONS

Ideal Landlord Behavior

When environmental issues occur within rental housing, interviewees identified that landlords should take the necessary action steps to address and correct the issue, seeking resources and support as needed.

"...it's not just cleaning. It's cleaning, repainting, pulling out rugs..." - Interviewee

Current Landlord Behavior

Interestingly, the majority of potential hazards that landlords do not inspect for are the same hazards they reported have never been encountered within their rental units. For example, landlords shared that they have not experienced any issues with air quality (91.4%), water quality (86.1%), and lead paint (83.3%). However, as shown above in the *Inspections* section, most landlords have also not inspected for these issues.

Similar to the actions taken towards inspections, most landlords reported correcting environmental issues within their rental units that are clearly noticeable, such as pests (69.4%), water leaks/damage (61.1%), and smoking/secondhand smoke (56.87%), as shown in Figure 3. Both property managers and property owners who rent out their units reported similar actions towards corrections.

Correction Challenges and Mitigating Actions

Similar to inspections, landlords shared that their greatest barriers to correcting environmental issues within their rental properties have been tenants and a lack of staff/workers.

Tenants. Most (62.2%) landlords reported difficult tenants and many (59.5%) shared that lack of notification from tenants were the primary challenges to being able to address issues. They expanded by sharing that tenants are often the reason corrective actions need to be taken but are not accommodating to the landlord and/or contractors to address the issue.

"It is troubling when a tenant takes down a smoke alarm or lets a pipe leak, or lets a toilet run." - Landlord

"Tenants... complain about issues they were made aware of before moving in, want expensive repairs/work done, but make it very difficult to execute/schedule work." - Landlord

To mitigate these challenges with tenants, landlords shared similar approaches they have taken to ensuring inspections, such as building relationships with their tenants and providing time and space for tenants to come forward with any corrective actions that need to be taken in their unit. One landlord shared holding 'office hours' on a weekly basis at their properties to allow tenants a designated time to come forward with any issues. Another landlord shared that they have provided discounts on rent as a way to encourage notification from tenants on any housing issues.

"I am at my buildings multiple times a week for office hours. This ensures that residents not only have a number to call, but they can come and talk to me about any issues as well." - Landlord

"Trying to create an open-door policy so the tenants feel comfortable coming forward if they see or witness any issues." – Landlord

Figure 3. Landlord Correction Activities



Resources. Over half of landlords (51.4%) also reported a lack of staff/workers as a key barrier to addressing and correcting environmental hazards within their rental units. Landlords shared that for many of the corrections needed to their units (e.g., plumbing, drywall repairs, etc.), they rely on contractors, who are often difficult to secure. In addition, some landlords shared that difficulties with their tenants have negatively impacted their ability to get contractors into their units to correct environmental issues.

"A bigger challenge is finding contractors willing to make small improvements, such as replacing plaster with drywall because of water damage." – Landlord

"I have tried to reschedule work and lost contractors who are too busy to come back or refuse to deal with (what the contractors view as problematic) tenants who threaten to report them for nonsensical reasons." - Landlord

In an attempt to ease these challenges and promote timely corrections for environmental issues, landlords shared that they work towards building a network of trusted and reliable contractors. *"Develop business relationships for electrical and plumbing work. – Landlord*

"Knowledge of local contractors, networking within the industry when needed..." - Landlord

See the Appendix for an overview of landlords' correction behaviors on specific environmental hazard areas.

RESULTS: Landlord Engagement

WHAT IS THE MOST EFFICIENT WAY TO REACH LANDLORDS?

While landlords and interviewees identified a number of ways to engage landlords in discussions around healthy housing and preventing environmental hazards, three primary methods stood out.

Utilize landlord associations. Both landlords and interviewees identified landlord associations as being an effective engagement mechanism. Landlords shared that they use associations to gather information on how they can maintain healthy rental units for their tenants. Similarly, interviewees identified engaging landlords through association meetings as a useful way to begin building relationships and starting conversations around preventing and addressing environmental hazards within rental housing.

Engage 'champions' in the landlord community. It was identified that landlords are sometimes fearful of engaging with state programs and agencies. Given this, interviewees identified the success of having landlords advocate to other landlords on the importance of preventing hazards within rental housing. Landlords are more likely to trust their peers and take the recommended actions steps if prompted by someone who has gone through the process.

Create a landlord registry. Interviewees identified the success in some Maine towns of establishing landlord registries. While this hasn't yet been implemented on a statewide level, interviewees saw the potential of having a statewide list of landlords to help partners and programs coordinate messaging to landlords and more easily promote best practices in the prevention and correction of environmental hazards within rental housing.

WHAT IS THE MOST EFFECTIVE MESSAGING TO MOVE LANDLORDS TOWARDS ACTIONS?

The evaluation showed that the content, messaging, and communication channels are important components of sharing information with Maine landlords to help them take the desired action steps towards inspecting and addressing environmental hazards within their rental units.

Content. Interviewees highlighted the importance of providing landlords with technical support and guidance on the prevention and correction of environmental hazards, which may include presentations, webinars, toolkits, and other resource documents. In addition, interviewees noted the financial burden on landlords and therefore suggested that messaging content should include financial assistance and/or incentives to help landlords prevent and address potential hazards within their units. Landlords shared that tenants can be a key factor in the overall health of their rental units, so interviewees noted that messaging content should include information and tips on building landlord-tenant relationships.

Messaging. Interviewees concluded that many landlords are in the business for the income. As such, money and profit are likely most landlords' 'bottom line'. Interviewees highlighted that making the financial or business case to landlords for preventing environmental issues in their rental units would speak well to their primary motivator – money. A goal would be to frame preventive actions as an initial investment that will ultimately end up saving landlords money and increasing profits. In addition, as landlords are often inundated with information and materials, messaging and outreach should be clear, concise, and as easy as possible for landlords to access and digest. Interviewees shared landlords should be given only the information they absolutely need with options of where to find additional information.

Channels. Interviewees described websites and printable materials, such as toolkits or fact sheets with tips for landlords. As mentioned in the survey, landlords seek information through various avenues such as landlord associations, community connections, and tenants. As such, to best reach landlords, partners and programs should aim to disseminate resources and educational materials to landlords through a multitude of channels, like websites, social media, newsletters, community partners, landlord associations, and more. In addition, interviewees highlighted the usefulness of a repository of information for landlords where content and materials on all topics could be compiled in one place. Landlords could then be directed to the repository to find all the information they need to prevent and address potential environmental hazards within their rental units.

REACHING LANDLORDS

The evaluation identified a number of challenges and successful strategies associated with engaging landlords in maintaining healthy rental housing and preventing environmental hazards.

Challenges

Landlord diversity. Interviewees highlighted that landlords in Maine were not a homogenous group and often needed varying levels of engagement. They reported that there are different types of landlords, such as small mom and pop landlords that may rent out an in-law apartment; larger professional landlords with multiple properties; or property owners who may see themselves more as investors who rely on property management agencies to manage the day-to-day operations of their buildings. In addition, interviewees noted that landlords are all in different places of readiness to hear about the work they could be doing to inspect and correct for environmental hazards within their rental units.

"...we have the people who do it as a business, and then we have the people who just want to make a little bit of an investment and/or maybe have an in-law apartment that they bought in a home, and they just want to rent it out." - Interviewee

"...we're reaching the people that are already interested. They're already... seeking out resources because they are interested in doing it. I think what we struggle with is how do we get through to the landlords [for whom] that's not their mindset." - Interviewee

Us vs. them mentality. Interviewees shared that some landlords may perceive state staff as "someone to be feared" because of their role in enforcement. This fear could keep landlords from attending informational meetings or other events to learn more about preventing and addressing issues within their rental units. Interviewees reported this us vs. them mentality was also present between landlords and tenants, with many landlords believing environmental issues within their rental units are the sole responsibility of their tenants.

"Landlords would often not show up, because I was the face of [program], and they were afraid of me, basically. So, it's not uncommon to plan meetings and have only one or two landlords show up." – Interviewee

"Oh, they said, 'this is all about what the tenants get to have. And it's all about what we have to do for the tenants'. And we've been very careful to say to them, [environmental] problems in a rental property are a shared responsibility. There are things landlords can do, and there are things tenants can do."- Interviewee

Landlord capacity. Interviewees acknowledged the amount of work involved with becoming and being a landlord. They noted that people may become a landlord, thinking it will be an easy source of revenue, but then become overwhelmed with the multitude of issues that may need to be addressed. Because of this, some landlords may not be prepared with the knowledge or skills needed to maintain healthy environments for their tenants and are overwhelmed by the information needed to do so.

Reactive response. Interviewees reported feedback they have received from landlords that information on various environmental hazards, such as lead, mold, and pests, can often be seen as 'niche' issues that landlords focus on only when there is a problem. As a result, it can be difficult to garner interest among landlords in engaging in prevention activities if there are currently no active issues at their rental properties.

"Oftentimes, [landlords are] busy - they've got a lot of things going on. And even if they're interested in health topics, and doing some of these policy pieces, they've got so many competing priorities, you don't have time to think about the long- term pieces." - Interviewee

"Nobody wants to know this information until they have to know it. One of the things I have learned is, it is one of those things where it's not a problem until it's a problem." – Interviewee

COVID-19. Interviewees mentioned engagement challenges posed by the COVID-19 pandemic such as cancelled trainings and landlord association meetings. Some interviewees expressed an uncertainty about what the 'new normal' for meetings may be and the impact that post-pandemic changes would have on strategies for engaging landlords.

"There's a lot more virtual connections and opportunities, which I think is really great for maybe statewide organizations or state health departments who are trying to get out there. Those landlords are maybe not as connected as they might have been." - Interviewee

Effective Strategies

Engage landlord associations. Nearly three-quarters (74.3%) of landlords shared that getting information from landlord associations in the form of presentations, resources, and/or general communication was a useful way to learn and be engaged. One-in-three (39.7%) landlords completed the survey because of outreach from their local landlord association, proving that leveraging landlord associations is an effective way to engage landlords. This was particularly true for property owners who rent out their units, with 76.9% having participated in the survey through landlord association outreach. Interviewees confirmed this by sharing that their most productive engagements with landlords on various environmental topics were often through landlord associations and similar groups. Interviewees reported that by participating in landlord association meetings, they have been able to form relationships, share and disseminate information, and seek input from landlords.

"I would say that speaking to landlord organizations, has generally been successful. The challenge is that often those are the best landlords." – Interviewee

"...regularly attending those landlord association meetings. So you're there as part of that, even when you're not on the agenda, sort of building those relationships, being part of it, I think can go a long way." - Interviewee

Though associations were deemed a good way to reach landlords, interviewees reported that the landlords who often attend association meetings were those we are already engaged in prevention activities. Interviewees expressed some concern that engagement through landlord associations is not always reaching the landlords who may need the most support around the prevention of environmental hazards within their rental units. However, interviewees also shared that landlord associations often support partners by distributing information to their members which is a way to reach additional landlords that may not attend association meetings.

"...we're reaching the people that are already interested. They're already joining these things and seeking out these resources because they are interested in doing it, which is great. We need to reach them too. I think what we all struggle with is how do we how do we get and find and reach and get through to the people, the landlords [for whom] that's not their mindset." -Interviewee

Identify local champions. Interviewees described strategies where they have engaged landlords to participate in project planning and leadership teams or to communicate information to their peers through videos, forums, and other meetings. Landlords may be more likely to act on messages from their peers rather than a state entity. In addition, interviewees noted a certain level of trust that may exist between landlords that may not be present with other partners.

"I think having a trusted member in their group and asking them to translate the information back to the group, that has been more effective than us just coming in and giving a presentation to the group. So having that buy in, and kind of a trusted leader. I think that's been the biggest success." - Interviewee

Many landlords (71.4%) also reported that having personal contacts with local, community organizations was helpful to obtain information. Though tenants were identified by landlords as presenting some

challenges to the rental housing inspection and correction process, 69.4% of landlords reported that tenants were a helpful source of information that supported the maintenance of healthy units.

Create a statewide registry. Some interviewees touched on the potential success of engaging landlords through the development of a statewide registry to target landlords, coordinate messaging, and highlight best practices. Interviewees shared that using a statewide registry may make it easier for programs to work together to coordinate the timing and content of communication and initiatives to avoid overwhelming landlords with too much information at one time. It was noted that some areas in Maine have experienced success with landlord registries, though it hasn't been implemented statewide as of yet.

"There're many issues that impact landlords, radon, lead, asthma, mold, moisture, all these kinds of issues. And having a landlord registry would allow us to reach out to landlords on each one of these issues individually and spaced over time." - Interviewee

MESSAGING

Content

Provide information. Technical support and guidance on the prevention and correction of environmental hazards was seen as valuable. This would include information from content experts on various topics in the form of presentations, webinars, toolkits, forums, and other documentation. Interviewees noted these materials and resources should include the most relevant information landlords would need to take action. In addition, they suggested creating a certification process that landlords could go through that would provide them with the skills and knowledge necessary for their role.

"I think there's opportunities for webinars, maybe credentials or reasons that they should take the class other than just knowledge." – Interviewee

"We have a website, we have some infographics, we have some videographics. ... we've just wrapped up the final dotting our I's and crossing our T's on a 17-page toolkit that's primarily designed for landlords." – Interviewee

Offer financial assistance or incentives. Funding and costs were identified by landlords as a common barrier to inspecting and correcting for environmental hazards within rental housing. Interviewees recognized this financial burden and suggested that a useful tool for landlords would be funding assistance and/or incentivization that would support them in conducting environmental testing and inspections; participating in informational classes; and completing necessary corrective actions within rental units. This may come in the form of free testing kits, educational materials, rebates, discounts on services, and/or pointing landlords in the direction of additional funding opportunities.

"Any kind of financial support, whether it be money or materials or discounts is likely to grab their attention." - Interviewee

"I think the more you can make it easy for folks and say, 'Yes, this is a requirement. And here's how we can help you' even if it's a small rebate, or it's something." - Interviewee

Support the landlord-tenant relationship. As the survey results highlighted, landlords' positive engagement with their tenants can be an effective way to ensure rental unit inspections and necessary corrections take place. Interviewees shared that providing landlords with resources and support to help maintain successful interactions with tenants would be useful. This may come in the form of sample language and/or templates for lease agreements; talking points to guide landlords in discussions with tenants; and/or signage for landlords to post at their properties to share housing rules.

"We're trying to have policy templates or have all the tools available. Like, here's the language, you can copy and paste this language into your lease agreement. And here's the sign that matches that language." - Interviewee

"We're asking them to do something, but we've got policy templates, we've got signage, we've got everything to help them implement. And sort of to take the onus off them to be able to take it on." – Interviewee

Messaging

Prevention as a cost-saving activity. As the survey results highlighted, funding to inspect rental properties and address issues was a challenge for landlords. Interviewees shared that focusing on the costs of having to address environmental hazards could be an effective way to move landlords towards inspecting for and preventing those hazards in the first place. An initial investment in prevention may ultimately save a landlord money down the road. Interviewees reported that making the business or financial case for the prevention of hazards speaks to landlords' bottom line – money.

"I think money talks. While these landlords are not usually public health people, they're usually in this business to make money. So, I think, figuring out how we as public health people can talk in a language that resonates with them from a business perspective." - Interviewee

"And so I think it's how can we sell why [prevention] is so [important]. How could we use our talking points and sort of sell why it's so important and why it's such an important investment. The same way as you'd invest in other things for your building, that investing in the health of your building is important." – Interviewee

Concise information. Interviewees shared that providing simple and concise information that is easy for landlords to act upon would be a helpful messaging tactic. As landlords are often inundated with information and requestions for action, providing digestible information increases the likelihood that they will take action. Interviewees suggested that resource documents and materials include only the information that landlords need to know will help prevent them from being overloaded with details.

"Tell them exactly what they need to know, and no more. Just give to them it straight. And having a resources section on a page, or places they can go for more information, I think is better than going way into the details." - Interviewee

"All communication, making things clear and simple and easy to read and absorb, in that two seconds that they take to look at something." - Interviewee

Channels

Multiple channels and mediums. Interviewees shared that, because landlords in Maine are not a 'onesize-fits-all' group, messaging should be disseminated to them in multiple ways and through multiple avenues. To meet the varying needs of the diverse population of landlords, interviewees suggested sharing materials via websites, social media, and other outlets. Websites were described as being useful places to share printable materials such as toolkits or fact sheets with tips for landlords. Social media can be used to provide awareness of issues, promote availability of resources such as testing kits, and to direct landlords to additional resources.

"... we try to reach landlords directly through mass media, mostly to educate them about ways to keep rental units safe..." – Interviewee

However, the use of multiple channels should be viewed cautiously as the majority of landlords rated some communication channels as ineffective. This included receiving information via electronic mailings/listservs (67.7%), through social media (66.7%), and on YouTube (63.9%). Though landlords identified listservs as an unproductive tool for engagement, over half (52.8%) of landlords who participated in the evaluation did so as a result of an email blast to a listserv. Direct email seemed to be a useful way to engage property managers in the evaluation, with 92.6% completing the survey as a result of email outreach.

Newsletter. One suggested format for sharing quick and easy information with landlords was a regular newsletter that different partners and programs collaborate to develop. First, it was suggested that landlords would sign up to receive the newsletter to allow partners and programs to begin building a database of landlords' contact details. Once signed up, on a regular basis (e.g., weekly, monthly, etc.), landlords would receive a 'tip of the day' with a quick and easy action step they could take to prevent environmental hazards within their rental units. For example, a tip may be to request a free lead dust test kit and would include a link for landlords to take action in the moment. On a regularly-determined basis, landlords would receive these tips and be prompted in a simple, clear way to take action.

Central repository. Some interviewees mentioned the usefulness of a one-stop-shop repository of helpful information for landlords on preventing and addressing environmental hazards. Landlords could then be directed to a single place to find information on any and all topics, such as radon, lead, air quality, mold, pests, etc. In addition, as the survey results highlighted, landlords are more likely to inspect for certain hazards such as radon because they are legally required to do so. If the radon materials were shared with them in the same location as resources on lead, for example, landlords maybe more apt to access the additional resources on lead and take actions.

"So one of the other issues is you're a landlord, and you have a problem. And let's say it's a radon problem you want to deal with, you have to understand how the state is organized to track down the right program. One of the things we did was develop a website that identifies healthy homes issues, and points landlords to the right programs. Revamping that, getting it up to date, and advertising it, I think would be very helpful." - Interviewee

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LANDLORD ENGAGEMENT FOR HEALTHY HOUSING EVALUATION: Air Quality

Evaluation

Beginning in 2022, Partnerships For Health worked with the Healthy Housing Evaluation Workgroup to implement a formative, mixed methods evaluation to better understand the progress landlords have been making in Maine to prevent and address environmental hazards within their rental units, as as well the effective methods to reach and support landlords with these efforts.

What is the most efficient way to reach landlords and what is the most effective messaging to move them towards actions?

The evaluation highlighted three strategies to reach landlords to promote healthy rental housing:

- 1. Engage landlords through associations and other professional groups
- 2. Identify and use local landlord champions
- 3. Create a statewide registry of landlords



LANDLORD ENGAGEMENT FOR HEALTHY HOUSING EVALUATION: Lead Paint

Evaluation

Beginning in 2022, Partnerships For Health worked with the Healthy Housing Evaluation Workgroup to implement a formative, mixed methods evaluation to better understand the progress landlords have been making in Maine to prevent and address environmental hazards within their rental units, as as well the effective methods to reach and support landlords with these efforts.

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LANDLORD ENGAGEMENT FOR HEALTHY HOUSING EVALUATION: Pests

Evaluation

Beginning in 2022, Partnerships For Health worked with the Healthy Housing Evaluation Workgroup to implement a formative, mixed methods evaluation to better understand the progress landlords have been making in Maine to prevent and address environmental hazards within their rental units, as as well the effective methods to reach and support landlords with these efforts.

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- 2. Identify and use local landlord champions
- 3. Create a statewide registry of landlords



LANDLORD ENGAGEMENT FOR HEALTHY HOUSING EVALUATION: Radon

Evaluation

Beginning in 2022, Partnerships For Health worked with the Healthy Housing Evaluation Workgroup to implement a formative, mixed methods evaluation to better understand the progress landlords have been making in Maine to prevent and address environmental hazards within their rental units, as as well the effective methods to reach and support landlords with these efforts.

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- 2. Identify and use local landlord champions
- 3. Create a statewide registry of landlords



LANDLORD ENGAGEMENT FOR HEALTHY HOUSING EVALUATION: Tobacco / Secondhand Smoke

Evaluation

Beginning in 2022, Partnerships For Health worked with the Healthy Housing Evaluation Workgroup to implement a formative, mixed methods evaluation to better understand the progress landlords have been making in Maine to prevent and address environmental hazards within their rental units, as as well the effective methods to reach and support landlords with these efforts.

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