Housing Investigations Involving Marginalized Populations

Summary Report

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Executive Summary

Public health inspectors at Public Health Sudbury & Districts investigate homes where health hazards may be present. Some of these investigations involve individuals who exhibit hoarding, unsanitary, or self-neglecting behaviours, intersecting with other factors such as poor health, physical limitations, social exclusion, unemployment, food insecurity, poor housing, and poverty.

A literature review found that there are links between marginalization and adverse housing, and that there are health risks associated with adverse housing. Addressing housing risks for residents who are disadvantaged due to socio-economic status, geographic isolation, and inaccessible community referral agencies is a challenge. Housing improvements, providing education and training, and implementing a variety of health promotion strategies all show promise in addressing challenges.

The Study

A study was conducted to describe housing investigations involving individuals who are marginalized, based on existing records, and to gather input about the challenges, facilitators, and ideas for improving such investigations from the perspective of all involved in these cases. The goal was to improve existing strategies for conducting investigations in homes where health hazards may be present and that involve individuals who are marginalized. The research was a collaborative effort between Public Health Sudbury & Districts and Laurentian University. The researchers received funding from the Louise Picard Public Health Research Grant. Five anonymized cases within the Public Health Sudbury & Districts' catchment area were explored as case studies, along with information from investigation records. The inspectors involved in these cases allowed a researcher to accompany them during a housing investigation. The inspector introduced the researcher to the client and the researcher asked the client if they would like to participate in the study. Interviews were conducted with consenting public health inspectors (5), clients (4), community service providers (4), community/family member (1), and landlord (1). Interview questions focused on what was working well with housing investigations involving marginalized individuals, what was not working well, and ideas for improvement.

Results

Content analysis of investigation records between 2013 and 2015 showed that in the 94 cases involving marginalized populations, potential health hazards were mostly reported by landlords, first responders or other service providers, and rarely made by the individual living in potentially adverse housing. The number one reason for initiating an investigation is house disrepair and/or sanitation, which includes hoarding. Almost half of the cases (40/94) were considered to involve hoarding, 15 of which were severely cluttered. In 77 of the 94 cases, other agencies were listed as also being involved in the investigation. The most common client characteristics include living alone, older age, and health issues. Most cases required multiple steps, visits, and contacts.

Of the 93 cases that were closed by the end of 2015, only 29 cases were considered satisfactorily resolved. The remainder were closed for reasons such as requiring services other than public health, property manager agreeing to take action, clients refused service, clients moved out of their accommodations, and death of the client.

Themes emerged from the analysis of the case study interviews and field observations to describe aspects of "what's challenging?", "what's working well?", and "what can be done moving forward?". The major themes reflect an ecological perspective, in which the individual's experience of marginalization and housing health hazards can be understood in terms of individual, environmental, community, and broader system factors. Sub-themes were also identified. The themes were:

- Client characteristics: aspects of the clients' demographics or personal/social situation
- Living environment: aspects of the housing situation
- Agencies: aspects of service provider agencies and community context
- System barriers: aspects of the broader network of interconnected determinants

Recommendations

Recommendations include actions that build on things that are currently working well, such as leveraging internal and external expertise, furthering inter-agency collaboration, and focusing on finding solutions and resources for clients. Participants shared specific recommendations that pointed to greater collaboration between agencies. These recommendations included gaining a better understanding of what agencies have to offer and who to contact when needed, and having a process to navigate clients through the system, particularly linking clients to appropriate mental health and long-term supports. The need for more training to better prepare public health inspectors in responding to housing health hazards involving marginalized populations was acknowledged.

There is opportunity to strengthen in several areas, including early detection of potential housing health hazards and prevention approaches, addressing the root causes of health hazards present in the home (for example, the social determinants), and blended approaches that address the immediate issue while also looking at upstream solutions.

Conclusions

Investigations in homes where health hazards may be present and that involve individuals who are marginalized are complex. Findings from this study described many challenges, as well as evidence of dedicated efforts on the part of inspectors and community partners to continue to support marginalized individuals in improving adverse living conditions. Efforts have been made to work in partnership to respond to these complex situations. Many opportunities for advocacy and policy development emerged. This study highlights the many successes and also provides recommendations to further enhance both preventative and proactive approaches to best support marginalized individuals to address the root causes of these adverse situations.

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Introduction

Public health inspectors (inspectors) at Public Health Sudbury & Districts investigate homes where health hazards may be present. These health hazards may include disrepair, lack of sanitation, odours, animal excrement, garbage, flooding, rodents, insects, and mould. Some of these investigations involve individuals who exhibit hoarding, unsanitary, or self-neglecting behaviours, intersecting with other factors such as poor health, physical limitations, social exclusion, unemployment, food insecurity, poor housing, and poverty. As these health and social factors combine, there may be a concern about the health of the resident and possibly the immediate neighbours. Public Health becomes involved when a community member or service provider is concerned enough about a potentially adverse situation to make a referral. In the public health inspection context, these are situations described as "health hazard investigations involving marginalized populations and housing".

Inspectors have a policy and procedure in place for responding to such cases. However, even with this guidance, responses to these situations are often challenging and ultimately not completely satisfactory. Some cases are time and resource intensive. Many cases are repeat referrals. Many are closed without underlying issues being resolved. Most require services that are outside inspectors' scope of practice.

Established procedures do not provide complete guidance when investigating such complex cases, and as a result, there may be uncertainty among inspectors with respect to what their role is, as well as confusion among other community agencies with respect to what Public Health Sudbury & Districts can do to resolve theses types of cases. Responding to the needs of individuals who are marginalized is a challenge for other community service providers as well.

As a way of building on community assets and responding more effectively to these cases, a Marginalized Population Working Group was initiated in 2009 by Public Health's Environmental Health Division, comprised of community partners who work with or encounter people living in homes where health hazards may be present, and who may also be experiencing social marginalization.

Purpose of the Study

Given the ongoing challenges associated with housing health hazard investigations that involve marginalized populations, an in-depth study was conducted. The perspectives of Environmental Health Division staff, investigation clients, community members, and community partners were sought as a way of building a greater understanding of these health hazard investigations. The study aimed to describe housing investigations involving individuals who are marginalized, based on existing records, and to gather input about the challenges, facilitators, and ideas for improving such investigations from the perspective of all involved in these cases. The goal was

to improve on existing strategies for conducting investigations in homes where health hazards may be present and that involve individuals who are marginalized.

Summary of the Research Literature

A literature review about the involvement of inspectors responding to housing hazards involving marginalized populations found that there are links between a person who is marginalized and adverse housing:

- Marginalized populations have limited access to resources and experience substantial life challenges (Mechanic & Tanner, 2007).
- Limited access to resources and substantial life challenges may lead to living in adverse housing (Jacobs et al., 2009; Mechanic & Tanner, 2007; Oudin et al., 2016).
- Some populations are more susceptible to living in adverse housing. These populations may include, but are not limited to, people living in poverty, Indigenous people, individuals who are part of a racial or ethnic minority or who have immigrated, individuals who identify as lesbian, gay, bisexual, transsexual, queer/questioning (LGBTQ), people who are uninsured, people who face chronic health issues, or experience severe mental illnesses or developmental disabilities, single parents, older adults, as well as individuals with a history of violence (Jacobs et al., 2009; Mechanic & Tanner, 2007; Oudin et al., 2016).

The literature also revealed that there are health risks associated with adverse housing. Some health risks include, but are not limited to:

- An increased likelihood of exposure to pathogens, infestation, and transmission of diseases (Fleury, Gaudette & Moran, 2012).
- Asthma and other respiratory illnesses have been linked to damp, cold, and mouldy homes as well as to old carpeting that may trap dust and allergens (Brugge et al., 2000; Krieger & Higgins, 2002).
- Depression and stress have also been linked with adverse housing. This has been associated with limited interaction with neighbours, and deterioration of the home as well as worry about eviction (Shenassa et al. 2007; Jacobs et al., 2009; Krieger & Higgins, 2002; Evans et al., 2003).
- Poor housing conditions may lead individuals to feel ashamed or embarrassed about the state of their homes (Burdette et al., 2011; Evans et al., 2003).

Barriers associated with resolving housing cases where marginalized populations and substandard housing intersect were also identified in the literature, including socio-economic status, culture, education, and geographic barriers (Rideout & Oickle, 2016). Furthermore, public health inspectors are faced with a combination of political, organizational, community, and personal factors that influence their assessment of housing hazards and proposed interventions. Addressing housing risks for residents who are disadvantaged due to socio-economic status,

geographic isolation, and inaccessible community referral agencies is a challenge (Lefebvre et al, 2012).

The research literature also highlighted some ideas for improving housing investigations involving marginalized populations. Housing improvements, providing education and training and implementing a variety of health promotion strategies have all been explored in the literature and show promise in addressing some challenges. Options include:

- Establishing effective collaborations and intersectoral partnerships, including respectful partnerships with First Nations communities, have shown promise in improving a community response to adverse housing within marginalized populations (Rideout, Oickle, Scarpino et al, 2015). In order to be successful, partnerships require practical training, clear expectations, accountability measures, and resources (Campbell, 2011).
- A centralized referral process or "health equity lead" may help mobilize a team's response to health inequity situations (Rideout, Oickle, Scarpino et al, 2015).
- Enhanced and specialized education and training for inspectors was mentioned as being needed in order to address complex public health issues (Knechtges & Kelley, 2015).
- A focus on built environment policies that support marginalized populations has been considered to have a greater ultimate impact than just addressing the immediate health hazards (Rideout, Kosatsky & Lee, 2016; Stewart & Bourn, 2013).
- Other initiatives and tools (for example, Health Impact Assessments, the Environmental Justice Screening Tool, the Green Communities Project, and the 'One-touch' approach) have been implemented to assess and improve housing quality, safety, and health outcomes for individuals (Holtzen, 2016; Jacobs, 2011; Kuholski, 2010; Cushing, 2015).

The present study aimed to contribute to the existing research literature by providing local information from the perspectives of staff, clients, community partners, and community members about what is working well, what is not working well, and ideas for solutions to improve housing investigations involving marginalized populations in the communities served by Public Health Sudbury & Districts.

Method

A collaborative study was initiated between Public Health Sudbury & Districts and Laurentian University. The research team consisted of a researcher from Public Health Sudbury & Districts and a researcher and student from Laurentian University. An Advisory Committee comprised of three staff from the Environmental Health Division at Public Health Sudbury & Districts worked with the research team. The researchers received funding from the Louise Picard Public Health Research Grant for this study. The study received ethics approval in 2015 from research ethics boards at Laurentian University and at Public Health Sudbury & Districts. The setting for this study was the Public Health Sudbury & Districts' catchment area. Public Health Sudbury & Districts is one of 35 local public health units in Ontario. It has a main office in Greater Sudbury

and five offices throughout the districts of Sudbury and Manitoulin. Its service area spans a geographical area of approximately 46 550 km^2 (Statistics Canada, 2017). This area encompasses 196 448 residents across 18 municipalities, 2 unorganized areas, and 13 First Nations communities (Statistics Canada, 2017). The methods used in the study were:

- Content analysis of investigation records
- Case studies (including field observation, interviews, and investigation records);
- Key informant interviews
- Focus groups (employed to assist with interpretation and development of recommendations)

Content Analysis of Investigation Records

As a way of describing the nature of this type of investigation, content analysis was done on anonymized inspectors' records specific to housing investigations involving marginalized populations dated from 2013 to 2015. Two researchers reviewed and coded data from these 94 charts.

Case Studies

A case study approach was used to examine ongoing housing investigations involving marginalized individuals. Case study is a qualitative approach in which researchers develop "an in-depth analysis of a case … bounded by time and activity, and researchers collect detailed information using a variety of data collection procedures over a sustained period of time" (Creswell, 2014, p. 14).

Case studies were sought that were complex and information-oriented (Flyvbjerg, 2006; Stake, 1995). Recruitment of cases occurred through the Advisory Committee and inspectors at Public Health. An Advisory Committee member and a researcher presented the purpose of the study to the entire Environmental Health Division in the fall of 2015, and described the characteristics of cases for the study:

- Housing investigations that were ongoing or that occurred within the last six months.
- Characteristics of marginalization were present: concern about health hazards in the home related to hoarding, unsanitary, or self-neglecting behaviours, and where other factors intersect, such as poor health, physical limitations, social exclusion, unemployment, food insecurity, poor housing, or poverty.
- The marginalized individual with whom the investigation was occurring (or the landlord involved with the situation) was over 18 years of age and able to provide informed consent.

Inspectors were asked to contact members of the Advisory Committee or the researchers if they were interested in bringing a case forward. Five cases were brought forward and explored as case studies for this research.

Case Study Descriptions

A short description of each of the five cases was developed based on all available evidence.

Field Observation

The inspectors involved in these five cases were asked to participate in the study and all agreed. Inspectors allowed a researcher to accompany them during an investigation to observe what a housing investigation involving individuals who are marginalized entailed. Eight field observations were conducted where a researcher accompanied an inspector on their health hazard investigation in the home involving a marginalized individual (some cases involved more than one visit at which field observations were made). On the way to and from an investigation, conversational interviewing (Liamputtong, 2007) was used to allow the researcher to get to know the context of the investigation. The inspector introduced the researcher to the client. Subsequently, the researcher asked the client if they would like to participate in the study. During field observations, if family members or other community members were present, the researcher also asked if they were willing to participate in the study.

Following the investigation, the researcher wrote descriptive field notes as a record of their observations and discussions during the investigation (Swanborn, 2010; Abma & Stake, 2014). These helped to understand what a housing investigation involving individuals who are marginalized entails. Field observations were thematically analysed in the same manner as the interviews by two researchers and were grouped under the same themes: challenges, working well, and solutions.

Interviews

After the five cases were identified, semi-structured interviews were conducted with consenting Environmental Health staff (5), clients (4), community service providers frequently involved with similar cases (4), community/family member (1), and landlord (1). Interview questions focused on what was working well with housing investigations involving marginalized individuals, what was not working well, and ideas for improvement. These interviews were conducted in person using an interview guide with open-ended questions that allowed the researcher to further explore themes as they were revealed. The interviews were adapted based on whether the participant was a service provider, community/family member, or marginalized individual. Some clients were interviewed on more than one occasion for the purpose of exploring emerging variables and being respectful of their communication style.

At the beginning of each interview, the participant received a verbal explanation and a written consent form outlining the study purpose and the participant's rights. Interviews were audio recorded, transcribed, and thematically analysed. All interview information was grouped into themes and sub-themes under challenges, working well, and solutions. Thematic grouping and analysis steps were done by two researchers.

Key Informant Interviews

In addition to interviews with case study participants, community agencies routinely involved in housing health hazard cases were selected from the content analysis of records, and four members of these agencies were approached to participate in an interview about housing health hazards in general. Consent was sought from all potential participants.

Focus Groups

Focus group interviews were conducted to assist with interpretation of the findings and development of recommendations. In the winter of 2017, two focus groups were held: one with the Environmental Health Division and a second with the Marginalized Population Working Group.

At the beginning of each focus group, participants received a verbal explanation and a written consent form about the purpose of the focus group and their right to refuse participation. The researchers presented the findings of the study, including the proposed solutions that came from the participants in the study. The groups were led through a priority setting activity of the proposed solutions. The rankings were tallied separately for both groups to determine which proposed solutions were most preferred. Additional solutions proposed by participants of these two focus groups were gathered for analysis.

Timelines

Table A outlines the timeline for the research activities involved in conducting this study.

Table A: Timeline for the study

Time frame	**Research Activities**
Summer 2015	Ethics approval Establish study Advisory Committee
Fall 2015–Winter 2016	Identify cases Collect data: Field observations, semi-structured interviews, investigation records
Winter 2016–Spring 2017	Analyze data
Winter 2017	Collect data: Focus groups Validate data
Summer 2017–Spring 2018	Prepare report

Results

Content Analysis of Investigation Records

The analysis of these records helped to understand the complexity of what housing investigations involving marginalized populations entail. Specifically, the analysis examined information regarding referral source, reason for the referral, who responded, agencies involved, inspectors'

contacts, client demographics, number of entries per record, the outcome of the investigation, and repeat cases.

Referral sources

In the 94 cases involving marginalized populations, reports of potential health hazards were mostly made by landlords, first responders, or other service providers. They were rarely made by the individual living in potentially adverse housing.

Reason for the referral

The number one reason for initiating an investigation is house disrepair or sanitation, which includes hoarding. Almost half of the cases (40/94) were considered to involve hoarding, 15 of which were severely cluttered.

Who responded

Housing-related health hazard investigations involving marginalized populations were conducted by 16 different public health inspectors. Most investigations were completed by one experienced inspector, who responded to 53 of the 94 cases. Eleven cases were investigated by two inspectors: one mentor (the same experienced inspector who had done the 53 other investigations) and one mentee.

Agencies involved

In 77 of the 94 cases, other agencies were listed as also being involved in the investigation. The number of involved agencies in each case ranged between 1 and 6 with a mean of 1.7.

Inspectors' contacts

In order to respond and ultimately address the health hazard present in the home, inspectors worked with many individuals. Contacts included other inspectors, property managers, first responders, social service agencies, family, neighbours, concerned citizens, private companies providing cleanup, plumbers, utility companies, long-term care facilities, building inspectors and by-law officers, pest control companies, and health care practitioners. On any given case, inspectors made between 2 to 55 contacts with others, with a mean of 7.4.

Location of investigation

Ninety-three (93) of 94 cases investigated were within Greater Sudbury, which comprises 80% of the population served by Public Health Sudbury & Districts.

Client demographics

As part of their investigation, inspectors describe client demographics such as living situation, gender, age, health information and community supports. The most common client characteristics include living alone, older age, and health issues.

Number of entries per record

Most cases required multiple steps, visits, and contacts. The number of entries per record ranged from 1 to 56, with a mean of 5.3 per record. Nine records had more than 10 entries; if these complex cases are removed from the average, the mean number of entries falls to 3.7 per record.

Outcome of investigations

From the 94 records opened as "housing health hazards" among "marginalized populations" between January 2013 and December 2015, 93 cases were closed by December 2015. Only 29 cases were considered satisfactorily resolved. Twenty did not require support from Public Health Sudbury & Districts. The remainder were closed for reasons such as requiring services other than public health, property manager agreeing to take action, clients refused service, clients moved out of their accommodations, and death of the client.

Repeat cases

Nine cases were listed as repeat, meaning that they were new referrals after the original cases had been closed.

Case Study Descriptions

Case 1

Client 1 is an older male, living alone in his own home who has been known to the Environmental Health Division for several years. He has limited mobility due to complications from diabetes, is incontinent, and has a heart condition. He has no family support, but a neighbour often provides meals and does his laundry. His home is cluttered with piles of stuff, often to a height of a metre or more. The home is infested by mice. The yard is cluttered and by-law enforcement routinely orders it cleaned out, with the cost being added to the client's taxes. The furnace had been disconnected, but space heaters, which are connected to electrical outlets by extension cords woven throughout the clutter, are being used for heating.

The Environmental Health Division was instrumental in spearheading a cleanup of his home six years previously and had closed the case. A recent referral to Public Health Sudbury & Districts was called in by first responders concerned for the resident and his living conditions. The case was ultimately concluded when the inspector visited the home during the client's hospitalization, noting burst pipes in addition to the hoarding conditions. The house was deemed not suitable for human habitation and the client agreed to pursue long-term care placement.

Case 2

Client 2 is a female in her fifties, living alone in her own rundown home. She has limited mobility as a result of a stroke. She was referred to Public Health because of the poor condition of her home by a Red Cross driver who drove her home from the hospital after a two-week stay

due to a severe infection in an injured foot. This client is an avid dog lover and had many dogs, but they were removed by the Society for the Prevention of Cruelty to Animals (SPCA) due to complaints from her neighbours. She has updated her home in the past to bring it up to building codes at the prompting of public health inspectors. She uses solar energy exclusively and has no potable water, no sanitary facilities in her home, and no outhouse; she composts her feces. She lives in the country by choice and wants people to respect this choice.

Case 3

Client 3 is an older female, with knee problems and mental health concerns, including possible suicide risk, who is currently hospitalized for unknown reasons. She lives alone in a double wide trailer, which she owns, consumed by hoarding. She is considering entering long-term care, but she is selective about where she will go.

Case 4

A superintendent of a low-income apartment building for seniors and people living with disabilities represents Case 4. Although his experiences in general were discussed, most of the focus was on one tenant whose unit was most unsanitary. The superintendent has attempted to have this client evicted for three years, but has been unsuccessful to date because she filed a complaint with the Human Rights Tribunal. This tenant is a woman in her fifties who misuses alcohol. She uses a walker or cane, has had many recent hospital admissions, and is not capable of looking after herself. She scares other tenants, and two have moved out because of her behaviour. No agencies will visit her apartment because of its condition. The landlord is burdened with additional costs due to this tenant, the cost of a defence at the Human Rights Tribunal, the loss of tenants who move because of her behaviour, the cost of weekly bedbug treatment, and the eventual cost to rehabilitate the apartment if the tenant is evicted.

Case 5

The fifth participant of the study is a landlord of a boarding house who, in many ways, could also be considered marginalized. She provides food and lodging to 16 people in a home providing a family atmosphere. The landlord's children and grandchildren are often present, especially for meals. Most of the tenants of the boarding house are older adults, all living with physical or mental disabilities, some dually diagnosed, and most of whom cannot make their own meals. This boarding house was found to be unsanitary. The landlord speaks of her early and ongoing financial struggles of running a boarding house.

Case Study Analysis

Themes emerged from the analysis of the case study interviews and field observations to describe aspects of "what's challenging?", "what's working well?", and "what can be done moving forward?". The major themes reflect an ecological perspective, in which the individual's experience of marginalization and housing health hazards can be understood in terms of individual, environmental, community, and broader system factors. The themes were:

- Client characteristics: aspects of the clients' demographics or personal/social situation
- Living environment: aspects of the housing situation
- Agencies: aspects of service provider agencies and community context
- System barriers: aspects of the broader network of interconnected determinants

Table B shows the sub-themes that emerged within each theme.

Table B: Interview and field observation themes and sub-themes

Main themes	**Client characteristics**	**Living environment**	**Agencies**	**System**
Sub-themes	- Infirmity - Crisis and trauma - Knowledge of available services - Supports, or lack of supports - Client's ability or willingness to address the issue	- Safe/ unsafe - Sanitary/ unsanitary - Landlord role - Eviction - Receiving long term care and/or supportive housing	- Negative perception of service providers - Skills and capacity gaps - Unclear roles - Unclear mandate - Service gaps - Dedicated service providers - Experienced service providers - Clear mandate - Collaboration - Knowledge of services	- Poverty - Political will - Housing - Social exclusion - Social supports

Within each main theme, the sub-themes are described in groupings of "what's challenging?", "what's working well?". The "what's challenging?" and "what's working well?" information emerged from the participants of this study (clients, community members, inspectors, and other service providers) through interviews and field observation.

Themes related to "what can be done moving forward?" are presented as recommendations toward the end of the report. This information came from the participants, along with information from the literature review and from analysis of the findings from a public and population health perspective.

Client Characteristics

Client characteristics were divided into sub-themes: infirmity, crisis and trauma, knowledge of available services, supports (or lack of supports), and client's ability or willingness to address the issue.

What's challenging?

The following client infirmities were all mentioned as being barriers to maintaining a healthy home: physical disability, mobility issues, risk of falling, incontinence, unable to care for self (for example, washing, toileting, making meals, wound care), advanced age, loss of speech, palliative, mental illness, suicide risk, and substance use.

Throughout the interviews, participants provided examples of clients being in crisis. Service providers find it nearly impossible to remedy housing situations when the client has reached a state of crisis. Challenges related to the client lacking supports were also mentioned, such as having no family or friends, or family living far away, or a family that can no longer assist because of caregiver burnout. Situations in which there are difficult relationships between clients and neighbours, and in which the client is unaware of which services to access or is not connected to services, were also identified in these cases. Other challenges expressed were the client's ability or willingness to adhere to service provider recommendations for improving their health or housing.

What's working well?

In addition to the challenges, participants also shared things that were working well to resolve health hazards in the home when a client was infirm. Addressing health hazards in the home is easier when a client is knowledgeable of available services, has family and supports in place, and is willing and able to work with service providers to remedy hazardous housing.

Living Environment

Living environment was divided into sub-themes: safe/unsafe, sanitary/unsanitary, landlord role, eviction, and receiving long-term care or supportive housing.

What's challenging?

Challenges in homes that were inspected included unsafe conditions. The conditions included fire hazards (for example, the use of an open flame to heat the home, the amount of combustible material in the home, extension cords buried in combustibles, heating with portable heaters, water leaking from burst pipes onto electric heater); clutter or hoarded materials in the home; poorly maintained home; lack of heat; poor insulation; or lack of hydro, especially in the winter. In boarding houses, tenants often smoke in their rooms, creating a danger for other tenants.

Challenges within the environments of those whose homes were inspected included conditions that were unsanitary. The conditions included lack of potable water, plumbing (or burst pipes), and bathroom facilities; human feces in blocked toilets and on floors; animal feces in

overflowing litterboxes or covering floors, yards, and sidewalks; strong odours preventing service providers from carrying out their duties within the home; infestations with mice and bedbugs; and food handling concerns.

Landlords and superintendents' express challenges associated with operating rental units: costs and time associated with maintenance and repair, personal struggles, workplace injuries, and challenges with tenants.

Other challenges regarding a risk of eviction were also mentioned. A landlord may threaten to evict to prompt cleanup and may ultimately provide an eviction notice. A tenant may choose not to comply with an eviction request, based upon a Human Rights Commission violation. Consequently, unsanitary conditions persist and the health and safety risks of tenants in the building remain. If the safety threat is great, a private home may be posted as uninhabitable by Building Services or Fire Services. Agencies are hesitant to prompt eviction as they do not want individuals to become homeless.

What's working well?

In addition to the challenges, participants also shared things that were working well when trying to resolve unsafe and unsanitary conditions in the home. Some clients were able to receive long-term care or supportive housing that helped improve their situation. It is helpful when the client's appliances and woodstoves are working and installed correctly, and when the housing is compliant with fire code and by-laws, and when the landlord fixes problems in compliance with fire codes and by-laws.

It was noted that many landlords repair housing health hazards for their tenants if they are made aware of the problem. In addition, some landlords go above and beyond their responsibilities by assisting tenants in preparation for bed bug treatment. Some landlords and superintendents can be very helpful in providing information to the inspectors. Some landlords and superintendents are concerned about the tenants' well-being and want to help. Some are very involved in the lives of tenants, providing supports and companionship (for example, supervision of tenant taking their medications, giving rides to tenants to medical appointments, and assisting with cleaning).

Agencies

The "Agencies" theme was divided into sub-themes: negative perception of service providers, skills and capacity gaps, unclear roles, unclear mandate, service gaps, dedicated service providers, experienced service providers, clear mandate, collaboration, and knowledge of services.

What's challenging?

Negative perceptions of service providers were mentioned as a challenge. Some clients feel dismissed or belittled by service providers or do not trust service providers. Some service

processes are perceived by clients to be inefficient (for example, wait times too long, clients are asked the same questions by various service providers, records are lost, records are not updated, there is a break in service, which requires the client to restart the service process).

Lack of certain skills and capacity to properly respond to investigations involving marginalized populations was mentioned as challenging. Not all inspectors are comfortable working with marginalized populations and there is some variation in responding to cases involving marginalized populations. There is a lack of training for public health inspectors to support marginalized clients or to liaise clients with appropriate services. It was noted that building relationships with other organizations and clients takes time and that there is limited staff to dedicate to prevention efforts. Staff turnover is a barrier when responding to cases involving marginalized populations.

Lack of clarity regarding roles and responsibilities about service provision involving marginalized populations was mentioned as a challenge (for example, who offers what services and when, and who takes the lead in which situations). Some providers think responding to such cases is part of their mandate, and others do not. There is a lack of clarity regarding the role of inspectors and Public Health's population health mandate and its link to individual home investigations. Sometimes there is a disconnect between what the client wants and what service providers can offer.

Individual agency mandates and policies limit a comprehensive response to housing health hazard involving marginalized populations. Examples include:

- Client discharged from hospital to return to unhealthy or unsafe housing.
- Privacy laws prohibit sharing information between agencies which can lead to duplication of services and/or the client not receiving the most appropriate service. Some service providers do not refer clients to other services in fear of breaking client trust.
- No follow-up after a client is referred to another more appropriate service which prevents knowing whether or not the situation was remedied.
- Some agency policies, in compliance with the *Occupational Health and Safety Act*, prohibit their employees to enter unsanitary and/or unsafe homes.
- Mental health assessments under the *Mental Health Act* are conducted in a clinical setting and not in the individual's home where symptoms of mental health issues may be greater
- Contradictions between agencies' approaches creates problems with compliance.
- Boarding houses are subject to frequent inspections which may result in demands for repairs. Because of this, some boarding houses choose to operate under the radar.
- When tenants call Public Health Sudbury & Districts just prior to leaving adverse rental accommodations, the landlord is under no obligation to allow the agency to inspect to confirm correction of deficits after the tenants leave.

- There have been difficulties in getting any response for requests for funds from the public guardian's office for clients requiring additional funds for remediating adverse housing situations.
- The *Mental Health Act* allows police to have self-neglecting clients who are unwilling to accept care evaluated for mental competency, and this has been used in cases that are an obvious risk to themselves or others. Unfortunately, there is not an evaluation system for less extreme cases to identify potential needs and supports.
- Agencies are hesitant to have a client who is unable to provide self-care deemed incompetent (so that necessary services can be provided) because the client can have this decision overturned in court.

Gaps in services were also a challenge. There is a lack of services available for individuals who hoard (for example, psychological support, low- or no-cost supports), including a lack of clear guidelines for assessing and responding to hoarding situations. In addition, there is a lack of early detection of potential housing health hazards or prevention approaches (for example, most cases are flagged for Public Health when the client is in crisis, and few cases have been flagged outside Greater Sudbury). Furthermore, there is a lack of services addressing the root causes of health hazards present in the home (for example, the social determinants of health) and a lack of a blended approach that addresses the immediate issue while also looking at upstream solutions.

What's working well?

Agency facilitators are numerous and have been categorized as the following: dedicated inspectors and service providers, experienced service providers, clear mandate, collaboration, and knowledge of services.

Inspectors and service providers often take the time to build a rapport with clients and take an interest in the people they serve and their cases. Some strategies include:

  - Meeting the client where they are and respecting their self-determination
  - Building off of the client's strengths
  - Empowering the client to advocate for themselves and make positive decisions for themselves

Some inspectors and service providers believe it is their responsibility to help clients find solutions and work very hard to find them. Examples include:

  - Convincing the client that long-term care may be their best option
  - Assisting with the relocation of a client with bed bugs while ensuring that bed bugs are not transferred with the client's belongings
  - Checking on the heat and pipes for a hospitalized client
  - Spearheading cleanup and renovation
  - Advocating on behalf of clients in the attempt to obtain more services for them
  - Providing taxi services to get to and from appointments and to get groceries

    - Showing clients how to clean their home

Experienced service providers often respond to cases involving marginalized populations, bringing their particular skills to the situation. Strategies included having more experienced inspectors mentoring less experienced inspectors, assisting with networking with other agencies, and discussing approaches with clients and other service providers.

Although Public Health's mandate regarding responding to health hazards in the home was sometimes considered unclear, certain elements of the mandate were mentioned as being helpful to guide this work.

- Public Health Sudbury & Districts' commitment to health equity and providing dedicated supports to priority populations
- The *Health Protection and Promotion Act* (HPPA) provides guidance, albeit limited, regarding investigations in buildings where there is more than one tenant and regarding boarding house inspections
- The *Ontario Public Health Standards* (OPHS) mandates inspectors to respond to referrals within 24 hours

Collaborating with other service providers to respond to housing health hazards was mentioned as a facilitator. In particular, the creation of the Marginalized Population Working Group was mentioned as a facilitator to improve responses to health hazards in the home involving marginalized populations. The Rapid Mobilization Table is another collaborative group that provides multi-agency support for clients in crisis.

Some inspectors have created a list of contacts they refer to in order to help respond to cases involving marginalized populations. Knowledge of what other service providers can offer is crucial. Specific examples were provided:

- Fire services: investigation and enforcement of laws pertaining to rooming houses, low-income housing, public housing, and multi-tenant apartment buildings
- Building services: can order cleanup of multi-unit dwellings upon request
- Paramedics: provide services to individuals in crisis and targeted services to marginalized populations through dedicated community paramedicine
- Mental health and other community services have mandates that allow them to help people, rather than solve hazardous housing conditions
- Society for the Prevention of Cruelty to Animals (SPCA) protect animals that are abused

System Barriers

The category System has been grouped under the following sub-themes: poverty, political will, housing, social exclusion, and social supports.

What's challenging?

Poverty is a challenge to being suitably housed. Clients on Ontario Works (OW) or Ontario Disability Support Program (ODSP) often can't afford a proper apartment or can't afford to make requested upgrades within their homes.

Public disinterest in the plight of those living in poverty and the lack of political will to provide better conditions for marginalized populations was mentioned as a barrier.

Lack of safe, affordable, and supportive housing, accessible for various dis/abilities or boarding houses for marginalized people was mentioned as a challenge.

Social exclusion, involving individuals taunted because of their odour and previous homeless status were mentioned during the interviews. In addition, individuals face exclusion due to the cleanliness of their homes or hoarding conditions within their homes.

Because housing hazards can extend beyond the walls of an individual's home, the question of a human right to use one's property as one sees fit versus social responsibility to keep a neighbourhood safe was raised as a tension.

What's working well?

Formal agency support and informal support from family, friends, neighbours, and landlords or superintendents for transportation, meals, laundry, and loans were mentioned as being helpful, along with non-judgemental and supportive service providers, including offering services in the client's home.

Recommendations

Recommendations are drawn from participant input on ways to move forward, research literature, and analysis of the investigation record content and case study findings from a public and population health perspective. Recommendations in Table C are organized by themes.

Recommendations include actions that build on things that are currently working well, such as leveraging existing expertise, furthering inter-agency collaboration, and focusing on finding solutions and resources for clients. Participants shared specific recommendations that pointed to greater collaboration between agencies. Specifically, recommendations pointed to needing to gain a better understanding of what agencies have to offer and whom to contact when needed, as well as having a process to be able to navigate clients through the system, particularly linking clients to appropriate mental health or long-term supports. The need for more training to better prepare staff in responding to housing health hazards involving marginalized populations was acknowledged. These recommendations are consistent with the literature related to establishing effective collaborations and intersectoral partnerships, (Rideout, Oickle, Scarpino et al, 2015), establishing a specialized team or navigation system to better support marginalized clients

(Rideout, Oickle, Scarpino et al, 2015), and enhanced education and training for staff to address complex public health issues (Knechtges & Kelley, 2015).

There is opportunity to strengthen in several areas: early detection of potential housing health hazards or prevention approaches, addressing the root causes of health hazards present in the home (for example, the social determinants), and blended approaches that address the immediate issue while also looking at upstream solutions.

The Environmental Health Division and the Marginalized Population Working Group participants each created a ranked list of recommendations. The different rankings of recommendations by these two groups reflects an aspect of the system in which the priorities, and what is considered helpful and realistic, differ depending on the agency perspective. Further exploration of what would be most effective to implement is recommended. This exploration can be done at an individual agency level; however, it may be most beneficial as part of interagency collaboration.

Table C: Recommendations grouped by theme and potential responsible actor

	Client characteristics
1	• Promote social inclusion: o Ask clients about their supports and link them to supports (for example, family, service provider) o Dispel stigma: work to normalize mental health challenges with clients and stakeholders.
	• Effectively link clients to services:
2	o Refer clients in crisis to appropriate emergency services and to a Rapid Mobilization Table when applicable.
3	o Locate a list of services for clients (for example, Warm Line, peer support, self-help groups, Canadian Mental Health Association (CMHA), housing support) and create client awareness of services available to them.
4	o Continue to follow-up with clients to ensure that they receive the services they need. Continue to coordinate with other agencies to best meet the needs of the clients.
5	o Share information regarding subsidies and tax breaks with individuals living with low income as appropriate.
6	• Use client centred care approaches as appropriate: o Meet the client where they are at. o Promote client self-determination: respect the wishes of clients, without judgement, who are living a lifestyle of their own choosing and who are not posing risks to themselves or others. o Treat all clients with dignity and respect. o Build off of client strengths. o Empower the client to advocate for themselves and make positive decisions for themselves.

	○ Continue to provide training and support to staff on building positive relationships.
7	• Continue to work with community partners to develop a comprehensive community approach to preventing and addressing hoarding and other complex housing situations. This approach should consider: ○ Training and skill building ○ Supports for early cleanup
	Living environment
8	• If a home is not habitable, identify strategies that lead to appropriate housing. Align efforts with existing housing first strategies.
9	• Develop a tool to identify who to call and what to do for investigations where unsafe housing is observed.
	• Landlord relationships and supports:
10	○ Continue to maintain good relationships with landlords/superintendents.
11	○ Encourage landlords/superintendents to periodically check in with tenants.
12	○ Continue to work collaboratively with boarding houses landlords/superintendents to help them meet minimum requirements, as they fill a gap in providing socially inclusive supportive housing for residents living with various disabilities.
13	○ Locate an agency or group who can support infrastructure improvements required to keep an individual in their own home.
14	• Advocate for smoke-free boarding houses.
	Agencies
	• Structures:
15	○ Identify navigation approaches to assist with triage and referring individuals to appropriate services. ○ Continue to collaborate with social workers or registered nurses with a mental health background when appropriate. ○ Continue to use community assets and skills to help respond to housing health hazard calls involving marginalized populations.
	• Processes:
16	○ Update policies and procedures for responding to unsafe living conditions involving marginalized populations. Include lists to guide staff through the process of handling housing health hazards involving marginalized populations. Include a common checklist to assess hoarding situations. Also consider using tools and approaches to assist in these investigations: Health Impact Assessments, the Environmental Justice Screening Tool, the Green Communities Project, and the 'One-touch' approach.
17	○ Design a standardized recording form to use when investigating housing health hazards that provides sufficient detail for follow-up.
18	○ Mentorship: pair more experienced staff with less experienced staff to assist with networking and learning promising approaches to working with marginalized clients.

19	○ Use a program planning framework to guide the ongoing collection and review of evidence needed to assess local needs and priorities.
20	○ Keep all cases open until the housing health hazard has been successfully addressed as appropriate.
	• Clarify roles and responsibilities:
21	○ Create awareness among community agencies and members about the role of public health inspectors in supporting marginalized individuals living in hazardous housing situations.
22	○ Communicate agency mandates between all agencies serving marginalized populations.
23	○ Educate tenants on the services provided in the community to assist with housing health concerns.
	• Training:
24	○ Advocate through the Canadian Institute of Public Health Inspectors (CIPHI) for appropriate training within current post-secondary education programs to better prepare for working with marginalized clients and responding to their needs.
25	○ Recommend to CIPHI the inclusion of workshops related to issues on responding to health hazards involving marginalized populations at their annual conference.
26	○ Identify training needs and professional practice opportunities for staff in the area working with marginalized populations.
27	○ Provide mental health training for staff delivering services to marginalized populations. This may include training in Mental Health First Aid.
28	• Improve interagency collaboration and cooperation: ○ The focus should be on prevention and protection and not only crisis intervention. ○ Encourage decision makers from involved community services to attend meetings. where housing health hazards in vulnerable populations are discussed so that solutions to recurring problems can be created. ○ Maintain the Marginalized Population Working Group to address and response to service gaps when working with marginalized populations and create a common vision, mission, goals and collaborative actions, including training needs. ○ Establish a process for sharing basic information about clients with the necessary community supports. ○ Share the results of this study with relevant stakeholders and community partners.
29	○ Create and continually update a list of agencies, a contact person, the populations they serve, and what service they provide.
30	○ Work towards providing seamless connections to mental health supports for clients. Advocate for community mental health action. Advocate for mental health assessments to occur in client's home.
	Systems
31	• Work with partners to identify areas where greater health equity work is required.
32	• Create public awareness of health hazards in the home and the services provided to tenants to assist with housing health concerns.
33	• Advocate for minimum living wage.

34	• Advocate for affordable, accessible, and supportive housing. Align efforts with existing housing first strategies.
35	• Identify policy gaps and work with health equity, mental health and addiction, and other relevant partners to develop supportive policies for marginalized populations (for example, built environment, rental housing, appropriate and available housing stock).

Conclusion

Investigations in homes where health hazards may be present and that involve individuals who are marginalized are complex. Findings from this study described many challenges, as well as evidence of dedicated efforts on the part of inspectors and community partners to continue to support marginalized individuals in improving their adverse living conditions. Efforts have been made to work in partnership to respond to complex situations involving marginalized populations. This collaborative work has shown promise and is valued internally and externally by partners.

This study highlights the many successes and also provides recommendations to further enhance both preventative and proactive approaches to best support marginalized individuals in improving their adverse living conditions and in addressing the root causes of these adverse situations.

A focus on policy did not explicitly surface in the interviews; however, in analysing the results of this study many opportunities for advocacy and policy development did come to light, such as:

- Advocating for basic income guarantee
- Developing built environment policies that are supportive of marginalized populations
- Advocating for affordable, accessible, and supportive housing

In order to improve housing quality, safety and ultimately improve the health outcomes of marginalized individuals, greater efforts should be placed in identifying and creating policies that support marginalized populations. There is language in the *Ontario Public Health Standards* (OPHS) that mandates this work under the Healthy Environments Standard. This work is not solely the responsibility of the Environmental Health Division. Collaborations internally with the Health Equity Team, the Mental Health and Addictions Team and the Nutrition and Physical Activity Action Team, and externally with the Marginalized Population Working Group would be needed to tackle this work comprehensively.

Many of the recommendations brought forth through this study fall under the four domains and objectives of the Policy Framework for Public Health outlined in the *Ontario Public Health Standards* (OPHS, 2018) (See Appendix A for this Framework).

- Social determinants of health: to reduce the negative impact of social determinants that contribute to health inequities

- Healthy behaviours: to increase knowledge and opportunities that lead to healthy behaviours
- Healthy communities: to increase policies, partnerships and practices that create safe, supportive and healthy environments
- Populations health assessment: to increase the use of population health information to guide the planning and delivery of programs and services in an integrated health system (OPHS, 2018)

To date, the majority of environmental health interventions have focused on healthy behaviours. In order to ensure a comprehensive approach to responding to cases involving marginalized populations, future efforts should be made in all four domains.

The recommendations cover a wide range of possible actions and vary in the effort required. To work toward implementation, each identified group should initiate a process of considering the recommendations, assessing their applicability and transferability to their agency context (see Appendix B for sample questions), and then developing an internal work plan to implement a comprehensive approach (including setting priorities, determining who is best suited to implement the work, and what training may be required).

Because of the important role of interagency collaboration and because many recommendations have shared responsibility, it will be valuable to develop a common vision, mission, goal, and a collaborative actions work plan for the Marginalized Population Working Group.

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Appendix A – Policy framework for public health programs and services

Figure 2: Policy Framework for Public Health Programs and Services

Goal	To improve and protect the health and well-being of the population of Ontario and reduce health inequities			
Population Health Outcomes	• Improved health and quality of life • Reduced morbidity and premature mortality • Reduced health inequity among population groups			
Domains	**Social Determinants of Health**	**Healthy Behaviours**	**Healthy Communities**	**Population Health Assessment**
Objectives	To reduce the negative impact of social determinants that contribute to health inequities	To increase knowledge and opportunities that lead to healthy behaviours	To increase policies, partnerships and practices that create safe, supportive and healthy environments	To increase the use of population health information to guide the planning and delivery of programs and services in an integrated health system
Programs and Services	**Goals** • To increase the use of public health knowledge and expertise in the planning and delivery of programs and services within an integrated health system • To reduce health inequities with equity focused public health practice • To increase the use of current and emerging evidence to support effective public health practice • To improve behaviours, communities and policies that promote health and well-being • To improve growth and development for infants, children and adolescents • To reduce disease and death related to infectious, communicable and chronic diseases of public health importance • To reduce disease and death related to vaccine preventable diseases • To reduce disease and death related to food, water and other environmental hazards • To reduce the impact of emergencies on health			
Principles	**Need** • Assess the distribution of social determinants of health and health status • Tailor programs and services to address needs of the health unit population	**Impact** • Assess, plan, deliver, and manage programs and services by considering evidence, effectiveness, barriers, and performance measures	**Capacity** • Make the best use of available resources to achieve the capacity required to meet the needs of the health unit population	**Partnership, Collaboration and Engagement** • Engage with multiple sectors, partners, communities, priority populations, and citizens • Build and further develop the relationship with Indigenous communities. These relationships may take many forms and need to be undertaken in a way that is meaningful to the particular community and/or organization

Appendix B – Assessment of applicability and transferability[1]

Construct	Factors	Questions to Ask
Applicability (feasibility)	Political acceptability or leverage	▪ Will the intervention be allowed or supported in current political climate? ▪ Will there be public relations benefit for local government? ▪ Will this program enhance the stature of the organization? ▪ Will the public and target groups accept and support the intervention in its current format?
	Social acceptability	▪ Will the target population be interested in the intervention? Is it ethical?
	Available essential resources (personnel and financial)	▪ Who/what is available/essential for the local implementation? ▪ Are they adequately trained? If not, is training available and affordable? ▪ What is needed to tailor the intervention locally? ▪ What are the full costs (supplies, systems, space requirements for staff, training, technology/administrative supports) per unit of expected outcome? ▪ Are the incremental health benefits worth the costs of the intervention?

[1] Buffett, C., D. Ciliska, H. Thomas. (2017). Assessing Applicability and Transferability of Evidence. National Collaborating Centre for Methods and Tools (NCCMT) and School of Nursing, McMaster University.

	Organizational expertise and capacity	▪ Is the current strategic plan/operational plan in alignment with the intervention to be offered? ▪ Does this intervention fit with its mission and local priorities? ▪ Does it conform to existing legislation or regulations (either local or provincial?) Does it overlap with existing programs or is it symbiotic?) ▪ Any organizational barriers/structural issues or approval processes to be addressed? ▪ Is the organization motivated (learning organization)?
Transferability (generalizability)	Magnitude of health issue in local setting	▪ Does the need exist? ▪ What is the baseline prevalence of the health issue locally? ▪ What is the difference in prevalence of the health issue (risk status) between study and local settings?
	Magnitude of the "reach" and cost effectiveness of the intervention above	▪ Will the intervention broadly "cover" the target population?
	Target population characteristics	▪ Are they comparable to the study population? ▪ Will any difference in characteristics (ethnicity, socio-demographic variables, number of persons affected) impact intervention effectiveness locally?