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# IOWA LEAD AND HOUSING SURVEY

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## Glossary

<b>CDC</b>	Centers for Disease Control and Prevention
<b>IDPH</b>	Iowa Department of Public Health
<b>IIPHRP</b>	Iowa Institute of Public Health Research and Policy

## Executive Summary

The Iowa Department of Public Health (IDPH) is dedicated to protecting and improving the health of Iowans through numerous governmentally sponsored public health programs that are effective, efficient, well-organized and well-coordinated. One important program that impacts Iowa's youngest residents is the Childhood Lead Poisoning Prevention Program (CLPPP). The goal of this program is to reduce the prevalence of childhood lead poisoning in Iowa. The CLPPP provides identification and case management for children with elevated blood lead levels, identification and control of lead paint hazards, surveillance of elevated blood lead levels, and provides education and outreach in communities across the state. This program is carried out statewide through a variety of contracts, collaborations and partnerships, as well as direct services that are centrally coordinated by the IDPH.

The Iowa Institute of Public Health Research and Policy (IIPHRP), at the University of Iowa, College of Public Health was contracted by IDPH to develop, conduct, and analyze a survey to determine how IDPH can better meet the needs of the housing sector in terms of education and resources. The purpose of this survey is to understand the knowledge and awareness of lead hazards in properties (rental and owner-occupied) of property owners and managers.

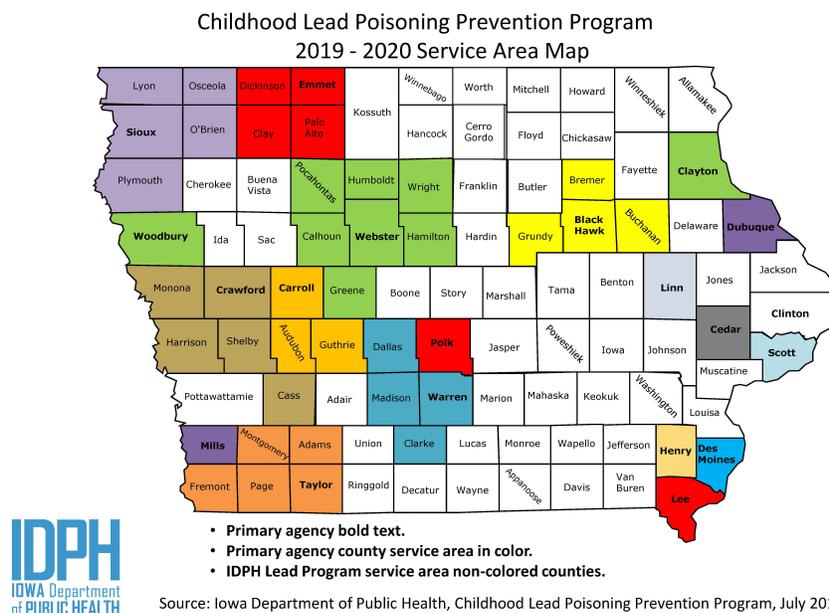
The results of this survey include recommendations that are intended to provide guidance to IDPH as they dedicate resources to education and resource building for the housing sector. Full recommendations can be found at the end of the report, but an overview of recommendations include the following:

- Complete a more in-depth survey collecting demographic information
- Create educational materials for the housing sector including education on
  - Lead paint rules
  - Lead-safe work practices
  - Impact to children
- Make the lead-certified contractor training more accessible through an online platform

## Project Overview

The Iowa Childhood Lead Poisoning Prevention Program targets all Iowa children under the age of six years old. The program is administered through the Iowa Department of Public Health, residing in the Bureau of Environmental Health Services.

The CLPPP is administered through Iowa counties via two mechanisms. The map below indicates how the program is delivered. Counties depicted in white are counties that receive support directly from the IDPH. The counties in color indicate a contracted CLPPP (contracts are held by the county board of health who work with a variety of entities including public health, housing and community organizations).



The CLPPP is organized by several clusters mostly configured by the geographic areas that are covered by the aforementioned contractors who provide the following components of the program.

- Identification and case management for children with elevated blood lead levels
- Identification and control of lead-based paint and other lead hazards
- Surveillance of elevated blood lead levels in children to monitor progress
- Education and outreach regarding childhood lead poisoning in communities and promotion of community involvement

The total budget for the Iowa CLPPP in 2019 – 2020 is \$948,891. Federal dollars received from the Center for Disease Control and Prevention (CDC) account for approximately 47% (\$445,000) of program funds. CDC funds are only allowed to be used for surveillance, outreach, education, and training activities conducted by the Iowa CLPPP. No CDC funds can be distributed to contracted CLPPPs for intervention services for lead poisoned children.

State appropriated funds account for approximately 53% (\$503,891) of the programs budget, of which \$242,062 were distributed in grant funds to local CLPPP contractors for providing support and intervention services to lead poisoned children. CLPPP contract awards for fiscal year 2020 range in size from \$4,800 to \$42,000 annually. Remaining appropriated funds support IDPH staff and resources (\$220,100), State Hygienic Laboratory (\$24,617), and electronic lab reporting (\$18,017).

Part of the success of the CLPPP in Iowa is dependent on the education and resources that are provided by IDPH to various sectors, partners, and collaborators across the state. A crucial sector in terms of childhood lead poisoning prevention is the housing sector. Providing intervention at the housing level is a form of primary prevention for childhood lead poisoning prevention that is imperative. To best provide primary prevention across the state, understanding the level of knowledge and awareness of lead hazards among property owners and managers will provide key information on how to better target this important audience with education and resources.

## Methodology

IIPHRP conducted a survey of Iowa property owners and managers using a network distribution approach in February 2020. This survey engaged property owners and managers across the state of Iowa through a web-based questionnaire. The survey was designed to better understand the knowledge, awareness, impact and prevention opportunities of lead hazards among property owners and managers. The target audience identification and survey process are described below.

### Target Audience

Broad participant identification was completed through a series of planning conversations between the IIPHRP team, the IDPH Lead Program team, and through the help of the Childhood Lead Advisory Workgroup (CLAW). Through these conversations, target audience groups were identified. The identified target audiences included property owners as well as property managers.

To reach this target audience, the IIPHRP and IDPH teams reached out to the CLAW members to gain access to their housing network. This led to the identification of the publicly available HUD Resource List (<https://resources.hud.gov/>). This list was used to retrieve email addresses for property owners and managers across the state of Iowa. Due to the nature of this resource, the IIPHRP and IDPH chose highly populated small sized cities as well as micropolitan locations across the state to retrieve email addresses from. The list of locations included the following areas across Iowa:

- Top 10 cities (according to the Iowa Public Health Tracking Portal)
  - o Des Moines
  - o Cedar Rapids
  - o Davenport
  - o Sioux City
  - o Iowa City
  - o Waterloo
  - o Council Bluffs
  - o Ames
  - o West Des Moines
  - o Dubuque
- Remaining cities and counties were chosen based on ruralness, geographic location in reference to the entire state and their ability to connect us with others in their area
  - o Muscatine
  - o Wapello County
  - o Appanoose County
  - o Lee County
  - o Des Moines County
  - o Henry County
  - o Creston
  - o Montgomery County
  - o Taylor County

The list was compiled and then cleaned to remove duplicates as well as remove property owners and managers from neighboring states total of 48 email addresses of property owners and managers across the state of Iowa were collected. These included properties that qualify as USDA Rural Housing, Public Housing, Low Income Housing Tax Credit, and Multifamily properties.

Dissemination of the survey was completed through two avenues. Email language with the survey link was sent to the compiled list (48 unique email addresses). Additionally, the Childhood Lead Advisory Workgroup (CLAW) was asked to distribute the email and the survey to their housing contacts. The information was also shared on the Iowa Public Health Association social media pages.

### Survey

The survey consisted of nine questions generated through a planning process by the IIPHRP and IDPH team. Questions were brainstormed, reviewed for clarity, sent to the CLAW for feedback, revised, and reviewed before distribution. This process ensured the questions were understandable and would provide useful information to the project. This preliminary survey took approximately 10 minutes for respondents to complete. Responses to this survey were confidential and were reviewed to identify general themes.

Table 1. Questions administered in the Lead and Housing Survey

Question	Question Type	Choices
<b>What type of residential properties do you own or rent? Select all that apply.</b>	Multiple choice, multiple answer	Pre-1978 Multi-family Single-family Owner-occupied Commercial building with rental units Low income Public housing
<b>Have your properties been occupied by families with children in the last 6 months?</b>	Multiple choice, single answer	Yes No
<b>In what counties do you own or rent single-family or multi-family residential properties? Select all that apply.</b>	Multiple choice, multiple answer	All 99 Iowa counties were listed as choices
<b>Which of the following lead paint rules addressing housing are you aware of? Select all that apply.</b>	Multiple choice, multiple answer	Repair, Remodeling, and Painting Rule Federal Disclosure Rule Pre-Renovation Notification Lead Hazard Repair I wasn't aware of any of these rules

Question	Question Type	Choices
<p><b>What barriers so you face in terms of completing remediation/abatement/renovation? Select all that apply.</b></p>	<p>Multiple choice, multiple answer</p>	<p>Funding to make proper repairs to lead-paint hazards  Time allowed by law to make proper repairs  Lead-paint repair laws too strict and costly  Knowledge on how to make proper repairs to lead-paint hazards  Not enough lead certified contractors  I have no barriers in maintaining my properties  Other (please specify)</p>
<p><b>Where are lead hazards typically found in a pre-1978 home? Select all that apply.</b></p>	<p>Multiple choice, multiple answer</p>	<p>Interior painted surfaces (walls, baseboards, ceilings, trim)  Exterior painted siding, soffit, fascia, window &amp; door trim  Lead water lines  Window troughs, frames, sill  Doors and door frames  Painted porches  Soil surrounding the perimeter of the home  Other (please specify)</p>
<p><b>What are the potential health effects associates with a child being exposed to lead <u>that you are aware of</u>? Select all that apply.</b></p>	<p>Multiple choice, multiple answer</p>	<p>Brain and nervous system damage  Learning and behavior problems  Slowed growth and development  Hearing and speech problems  I wasn't aware of any long-term health effects  Other (please specify)</p>
<p><b>What methods do you use when repairing lead hazards once they are identified? Select all that apply.</b></p>	<p>Multiple choice, multiple answer</p>	<p>Wet sanding  Wet scraping  Containment  Dry sanding  Dry scraping  Power washing  Using a lead-certified contractor  Other (please specify)</p>
<p><b>There are several primary sources of lead poisoning associated with housing. Which of these primary sources of lead do you think is the most common issue in Iowa? Rank these sources from 1-3, 1 being the most common issue (drag and drop to rank).</b></p>	<p>Rank order</p>	<p>Paint  Water  Contaminated soil</p>

Following the survey, participants were directed to an educational resource developed regarding lead-safe work practices to repair housing stock that contains lead, and the various federal and state rehab and repair policies as seen below. The IIPHRP and IDPH teams felt it was necessary to use this opportunity to provide education to an audience that is not often targeted with education regarding lead poisoning policies designed to prevent exposure to lead, repair lead hazards, and disclose where lead has been identified in a home. The educational handout is permanently stored on the IIPHRP website and is easy to download and print.



### **Repair, Remodeling, and Painting Rule**

Requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA (or an EPA authorized state), use certified renovators who are trained by EPA-approved training providers and follow lead-safe work practices.

For additional information visit:

<https://www.epa.gov/lead/lead-renovation-repair-and-painting-program>

[https://www.hud.gov/program\\_offices/healthy\\_homes/training/rrp/rrp](https://www.hud.gov/program_offices/healthy_homes/training/rrp/rrp)

### **Federal Disclosure Rule**

Requires the disclosure of known information on lead-based paint and lead-based paint hazards before the sale or lease of most housing built before 1978.

For additional information visit:

[https://www.hud.gov/program\\_offices/healthy\\_homes/enforcement/disclosure](https://www.hud.gov/program_offices/healthy_homes/enforcement/disclosure)

<https://www.epa.gov/lead/real-estate-disclosures-about-potential-lead-hazards>

<https://www.epa.gov/lead/lead-residential-lead-based-paint-disclosure-program-section-1018-title-x>

### **Pre-Renovation Notification**

Requires notification that lead-based paint may be present prior to renovation, remodeling, or repainting in pre-1978 target housing.

For additional information visit:

<https://idph.iowa.gov/Environmental-Health-Services/Lead-Professional-Certification/Pre-Renovation-Notification>

### **Lead Hazard Repair**

Is applicable in jurisdictions in which a local board has adopted this chapter for the purpose of requiring control of lead-based paint hazards where a child has been identified with an elevated blood lead level.

For additional information visit:

<https://www.legis.iowa.gov/docs/iac/chapter/641.68.pdf>



# Lead Exposures

Who is most at risk for lead poisoning?

Children under the age of 6 who live in a home built prior to 1978.

Where can lead be found in a pre-1978 home?

- Chipping/peeling interior paint
- Chipping/peeling exterior paint
- Lead water lines
- Old windows
- Doors and door frames
- Painted porches
- Soil surrounding the perimeter of the home

## Lead Safe Work Practices

### Safe

- Wet Sanding
- Wet Scraping
- Hiring a lead-certified contractor
- Containment

### NOT Safe

- Dry Sanding
- Dry Scraping
- Power Washing

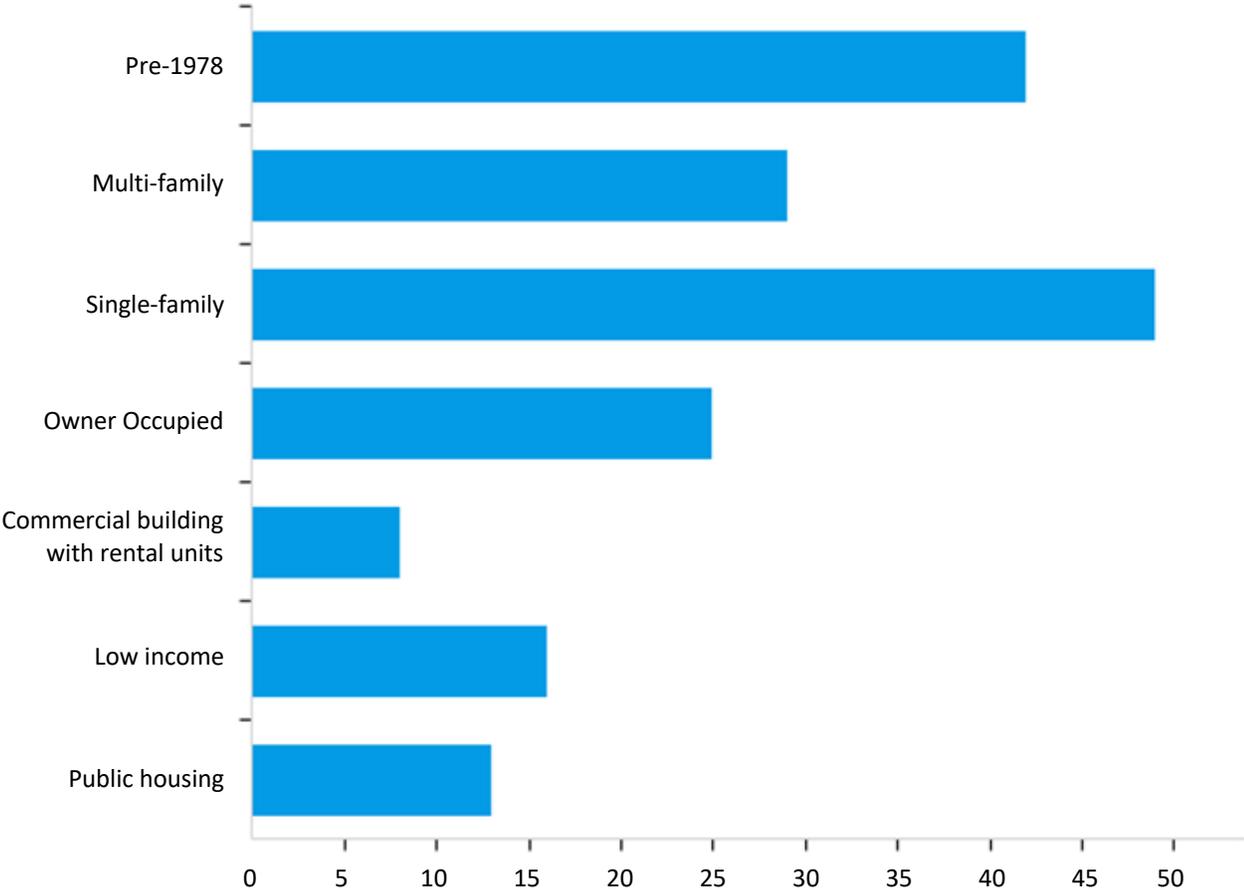


## Results

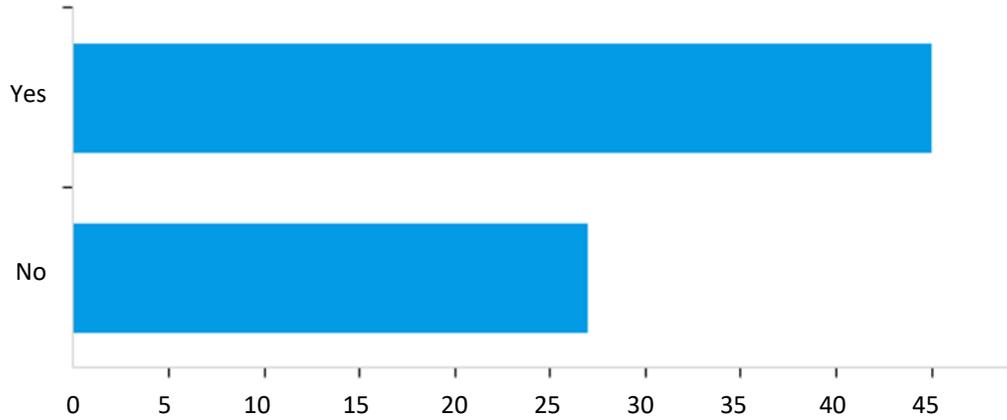
The Lead and Housing Survey was sent to a list of 48 individuals and the CLAW to distribute to their networks. The survey did receive a total of 72 responses in the two-week period it was active. Due to the nature of using a network distribution approach, the reach of the survey is unknown to us. This survey provided a starting point for understanding the knowledge and awareness of lead exposure in property owners and managers.

Please note the majority of the questions are select all that apply. The graphs shown for these questions display how many selected each response. There are many questions where respondents selected more than one response, which is important to consider as you look at the data below.

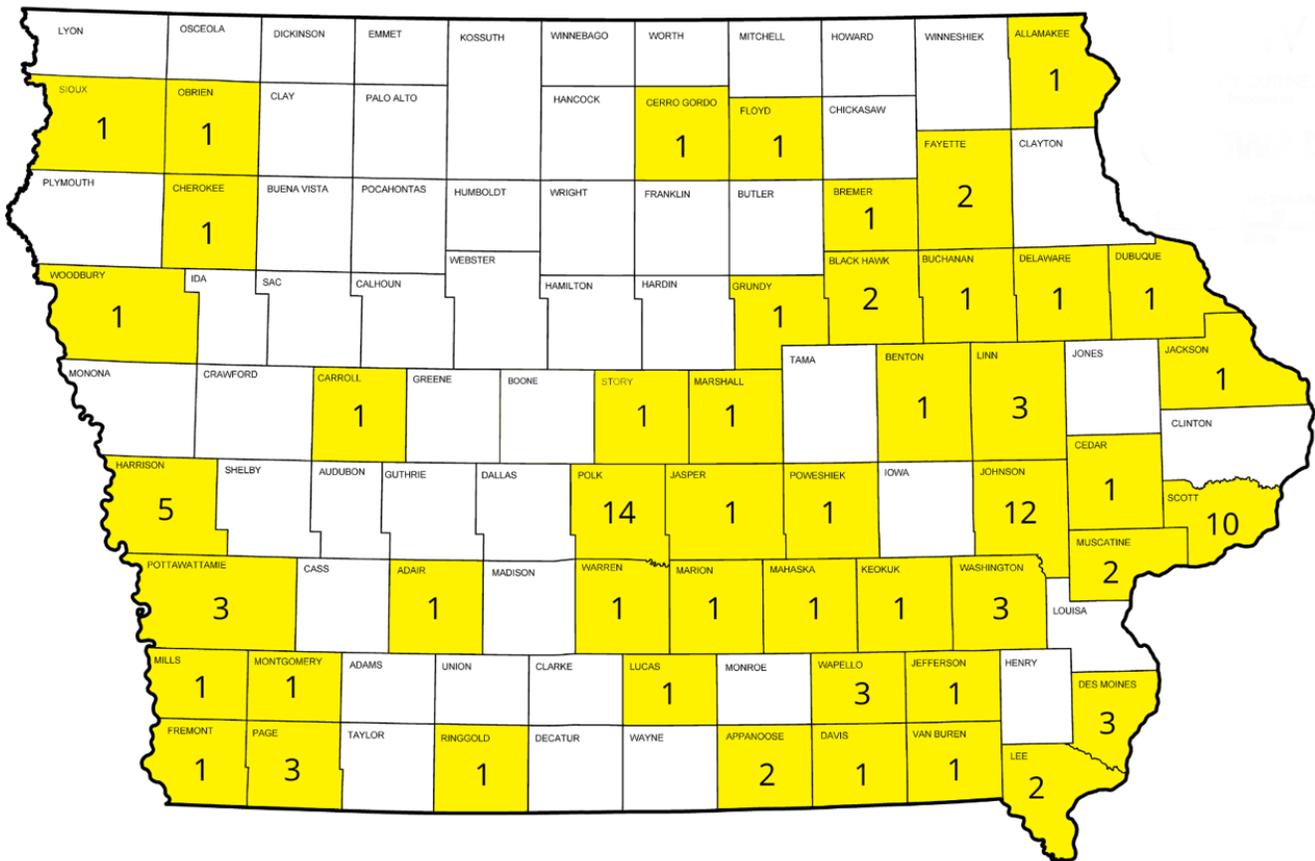
*Q1. What type of residential properties do you own or rent? Select all that apply.*  
N=182 for overall choice count; N=42 for pre-1978; N=29 for multi-family; N=49 for single-family; N=25 for owner-occupied; N=8 for commercial building with rental units; N=16 for low income; N=13 for public housing.



Q2. Have your properties been occupied by families with children in the last 6 months?  
 N=72 for overall choice count; N=45 for yes; N=27 for no.

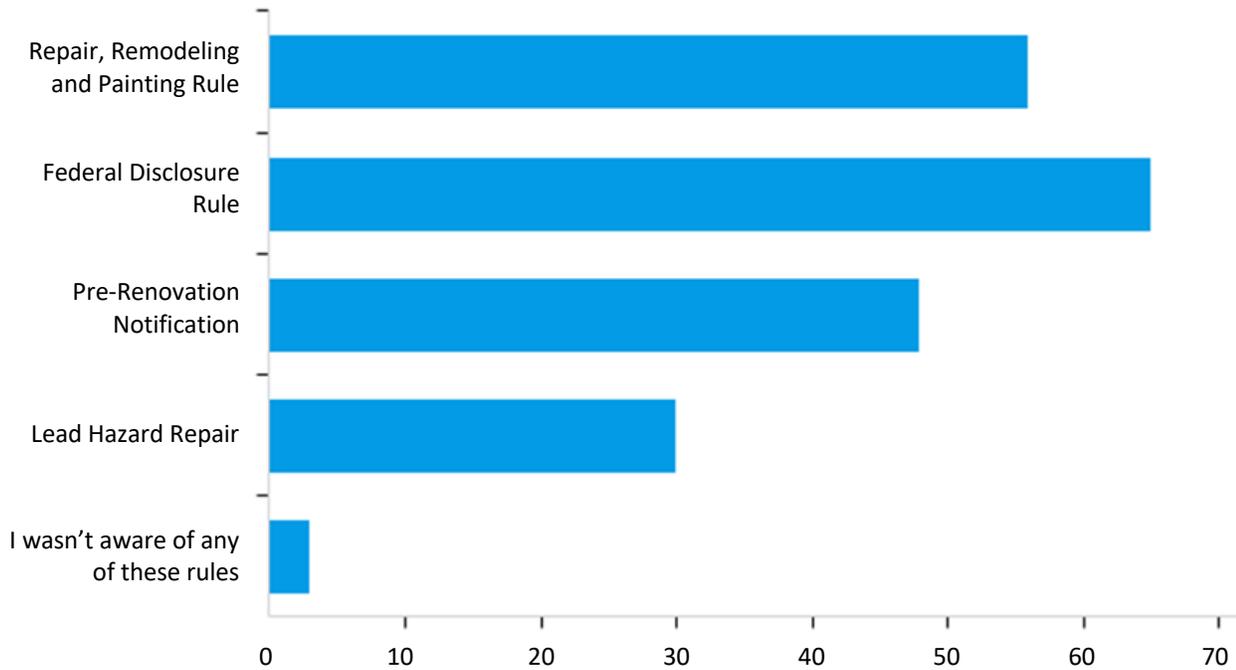


Q3. In what counties do you own or rent single-family or multi-family residential properties?  
 Select all that apply.  
 N=102 for overall choice count.



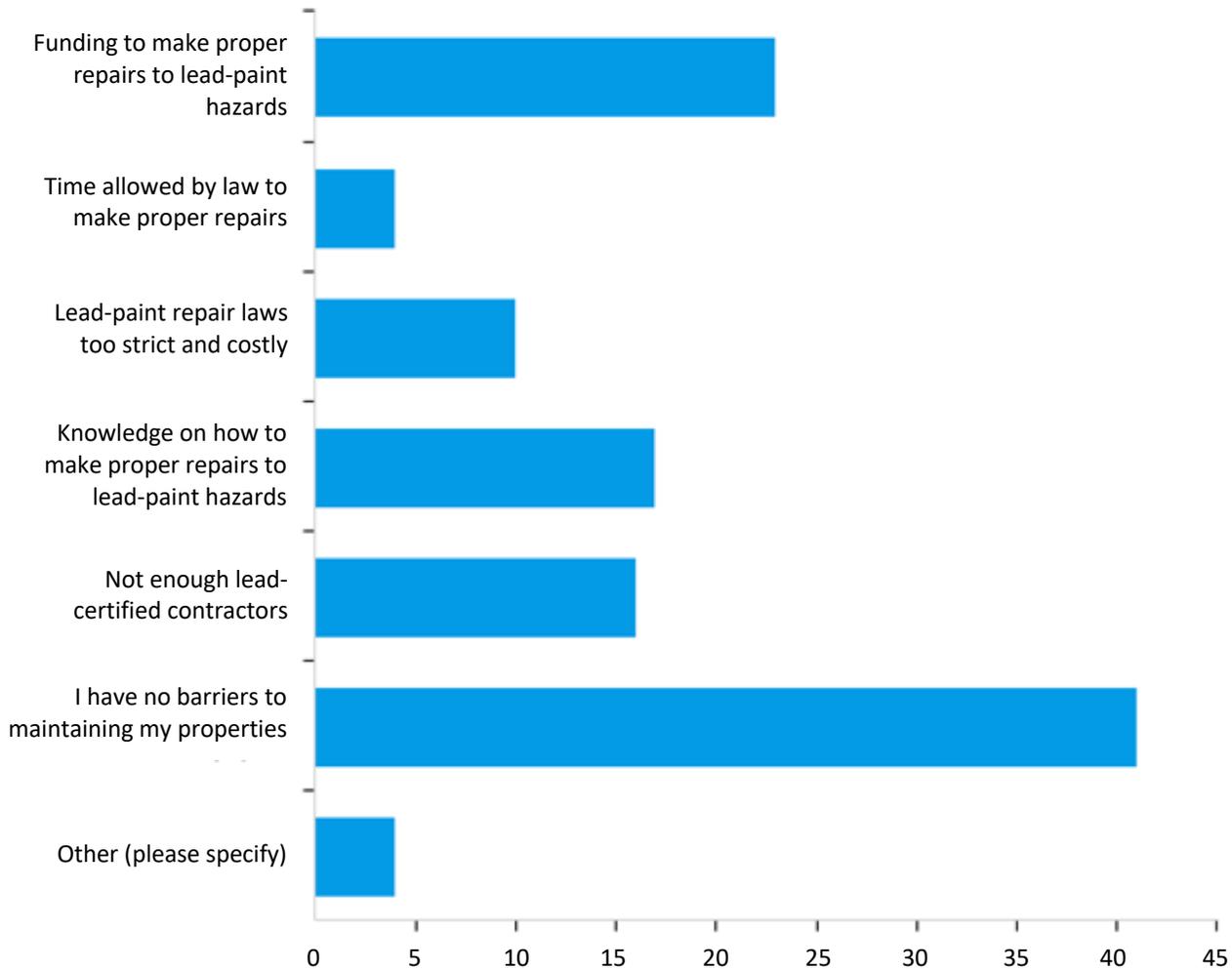
Q4. Which of the following lead paint rules addressing housing are you aware of? Select all that apply.

N=202 for overall choice count; N=56 for Repair, Remodeling, and Painting Rule; N=65 for Federal Disclosure Rule; N=48 for Pre-Renovation Notification; N=30 for Lead Hazard Repair; N=3 for I wasn't aware of any of these rules.



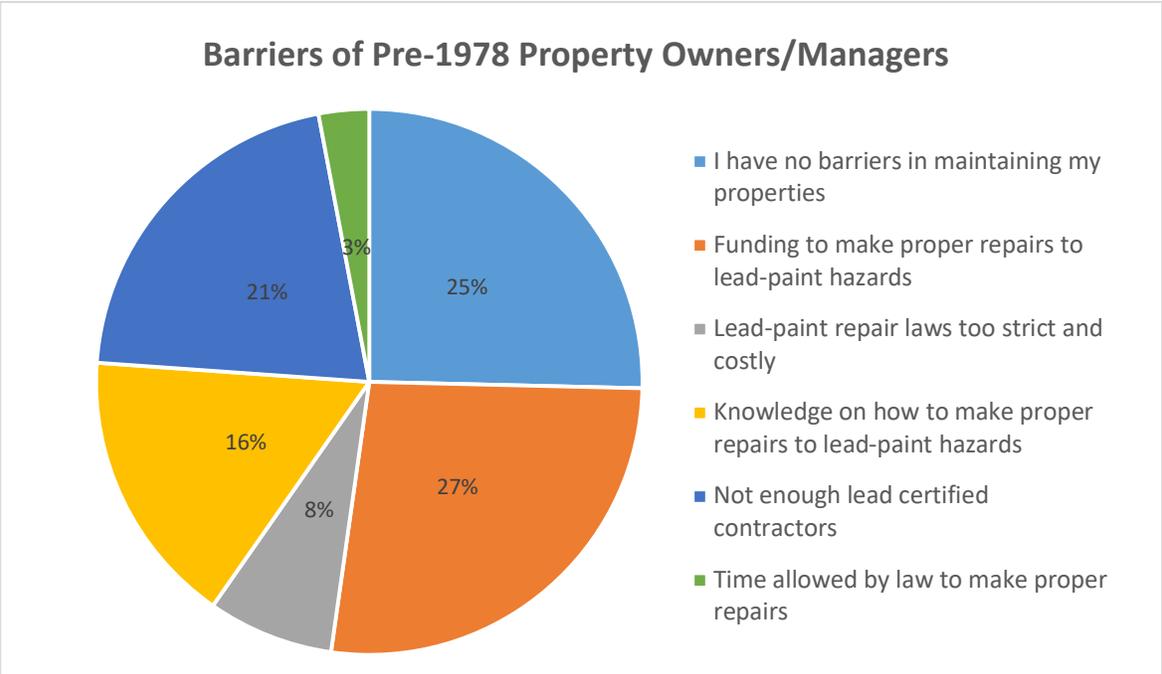
*Q5. What barriers do you face in terms of completing remediation/abatement/renovation?  
Select all that apply.*

N=115 for overall choice count; N=23 for funding to make proper repairs to lead-paint hazards; N=4 for time allowed by law to make proper repairs; N=10 for lead-paint repair laws to strict and costly; N=17 for knowledge on how to make proper repairs to lead-paint hazards; N=16 for not enough certified contractors; N=41 for I have no barriers in maintaining my properties; N=4 for Other (please specify).



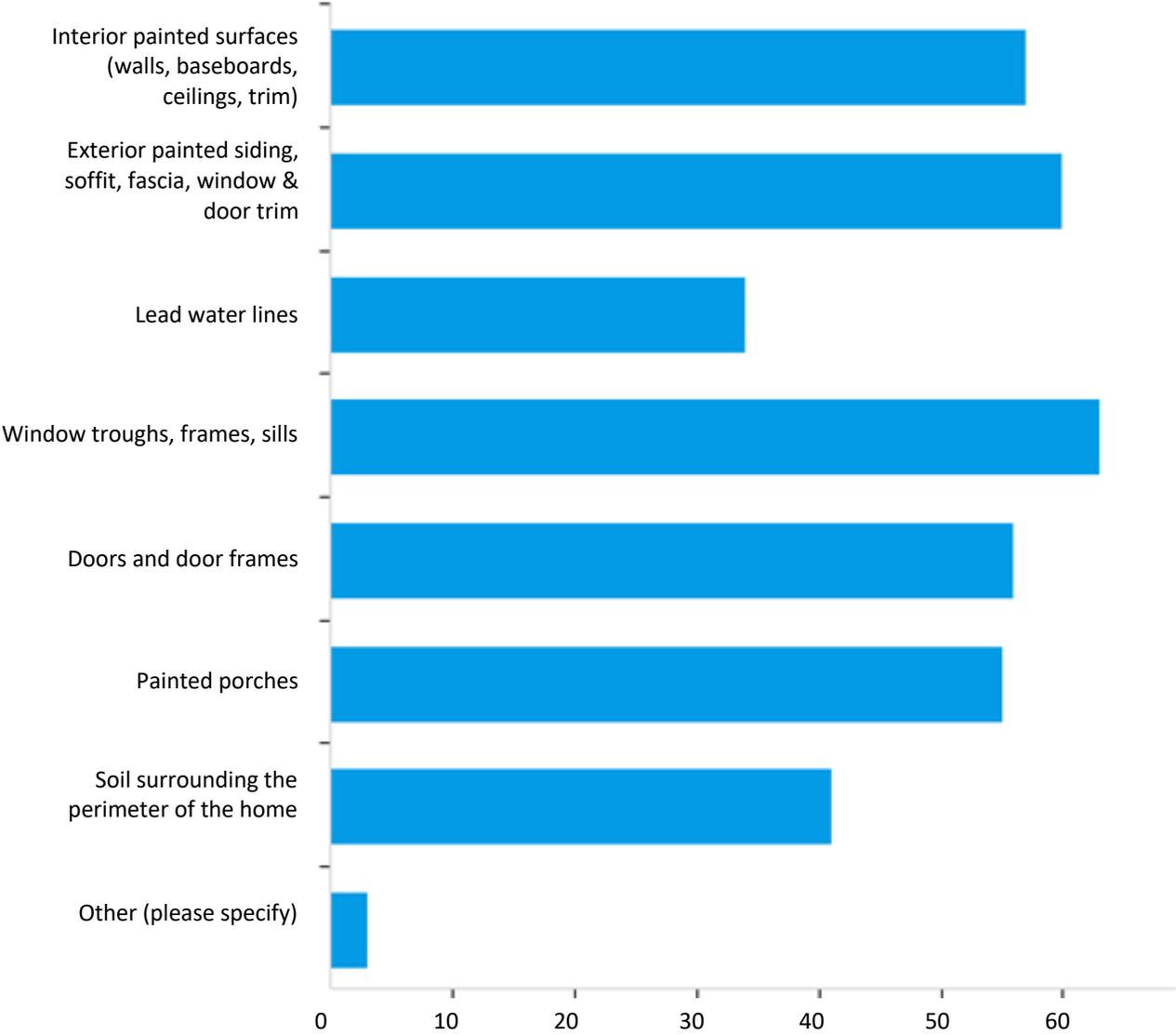
The text responses of those that selected “other (please specify)” included: over the years the Housing Agency has abated or encapsulated lead in our units. Over the years we have been disposing of our housing units, not acquiring new units; we don’t face any barriers; currently do not have lead, that I know of, but if I did these are the two main issues I would face; time to make it a priority. Lead is a priority: there needs to be a fund to help these people in these homes.

Responses to this question resulted in further analysis of this data. Due to 42% of respondents being property owners/managers for post-1978 properties, it is important to identify the barriers of property owners/managers of pre-1978 properties.



This analysis indicates that among the barriers that property owners/managers of pre-1978 properties face, funding and access to lead-certified contractors are the largest. Of the 27% of respondents that selected funding, they also selected at least one other barrier to completing remediation/abatement/renovation.

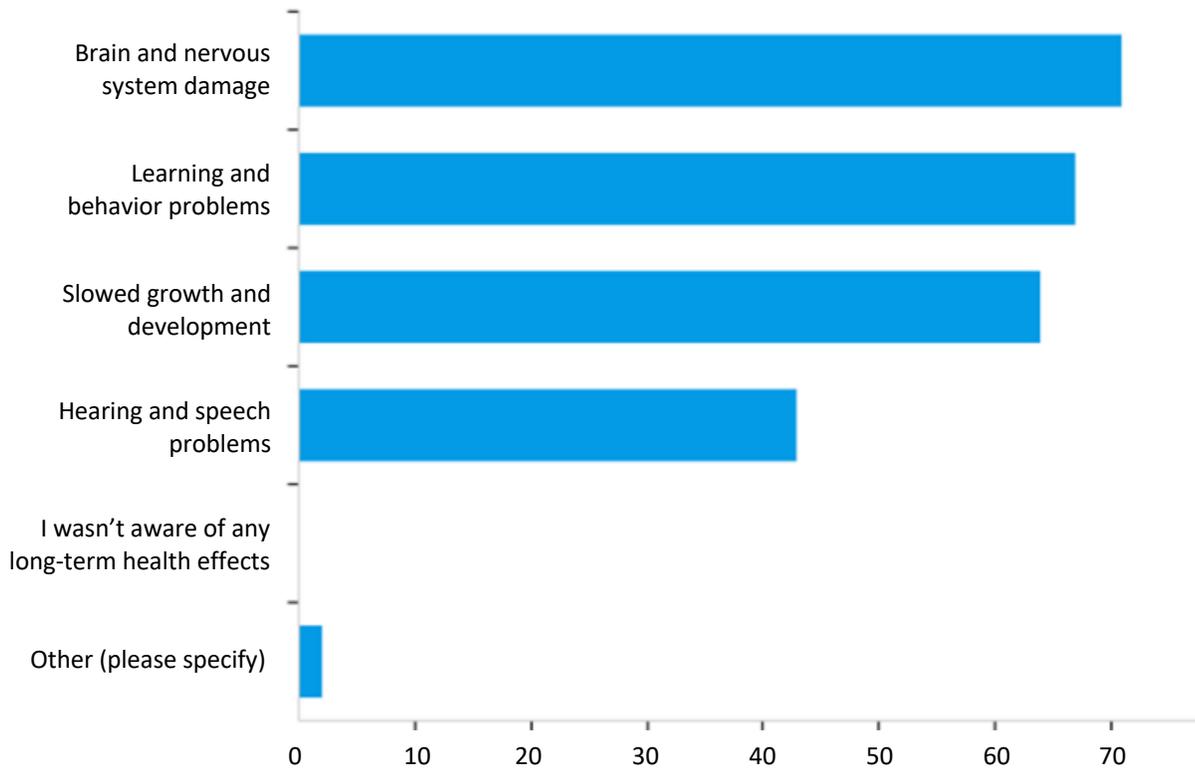
Q6. Where are lead hazards typically found in a pre-1978 home? Select all that apply.  
 N=369 for overall choice count; N=57 for interior painted surfaces; N=60 for exterior painted siding, soffit, fascia, window & door trim; N=34 for lead water lines; N=63 for window troughs, frames, sill; N=56 for door and door frames; N=55 for painted porches; N=41 for soil surrounding the perimeter of the home; N=3 for other (please specify).



The text responses of those that selected “other (please specify)” included: not a lead licensed contractor.

Q7. What are the potential health effects associated with a child being exposed to lead that you are aware of? Select all that apply.

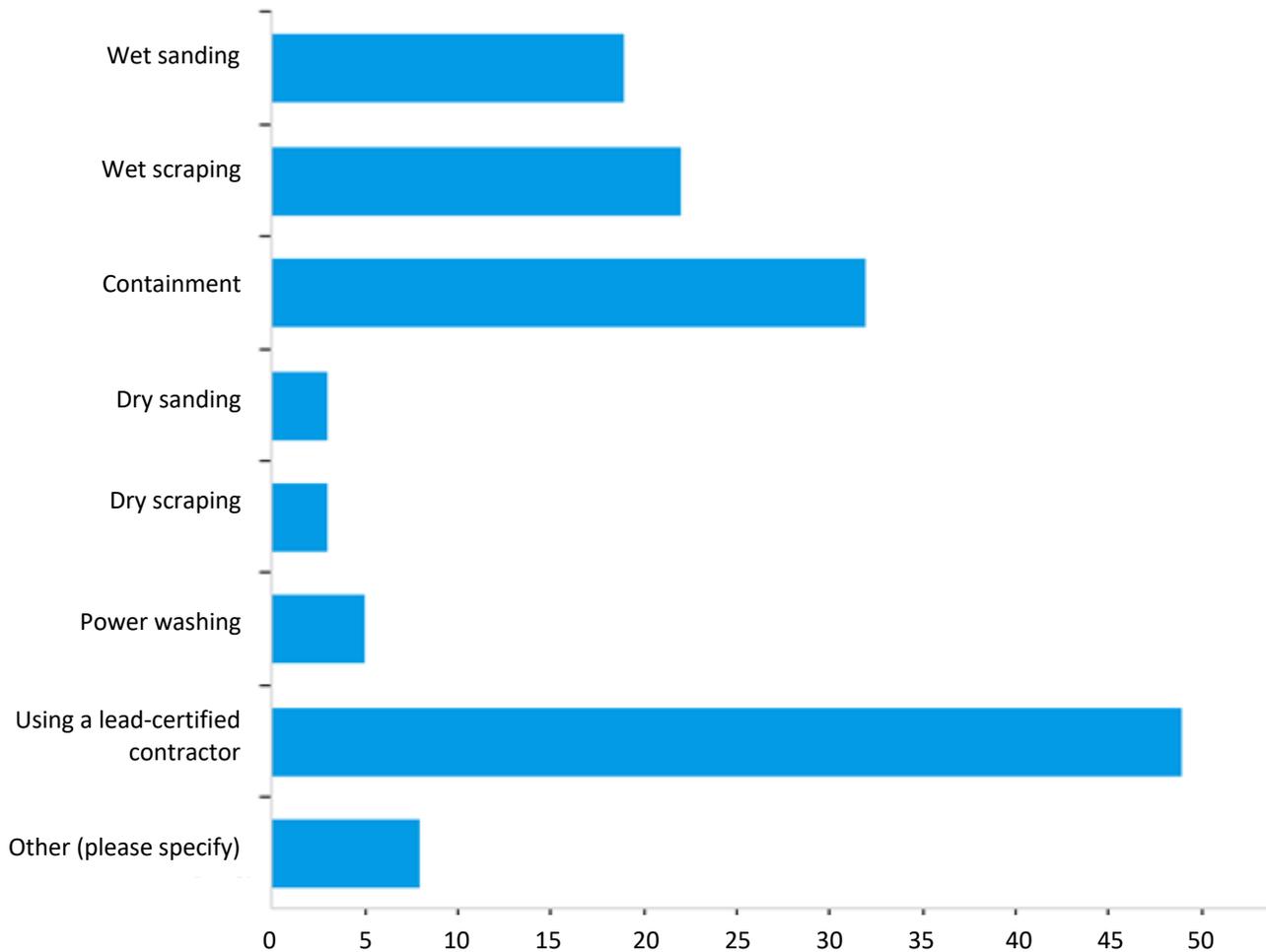
N=247 for overall choice count; N=71 for brain and nervous system damage; N=67 for learning and behavior problems; N=64 for slowed growth and development; N=43 from hearing and speech problems; N=0 for I wasn't aware of any long-term health effects; N=2 for other (please specify).



The text responses of those that selected "other (please specify)" included: potential for disruptive behavior.

Q8. What methods do you use when repairing lead hazards once they are identified? Select all that apply.

N= 141 for overall choice count; N=19 for wet sanding; N=22 for wet scraping; N=32 for containment; N=3 for dry sanding; N=3 for dry scraping; N=5 for power washing; N=49 for using a lead-certified contractor; N=8 for other (please specify).



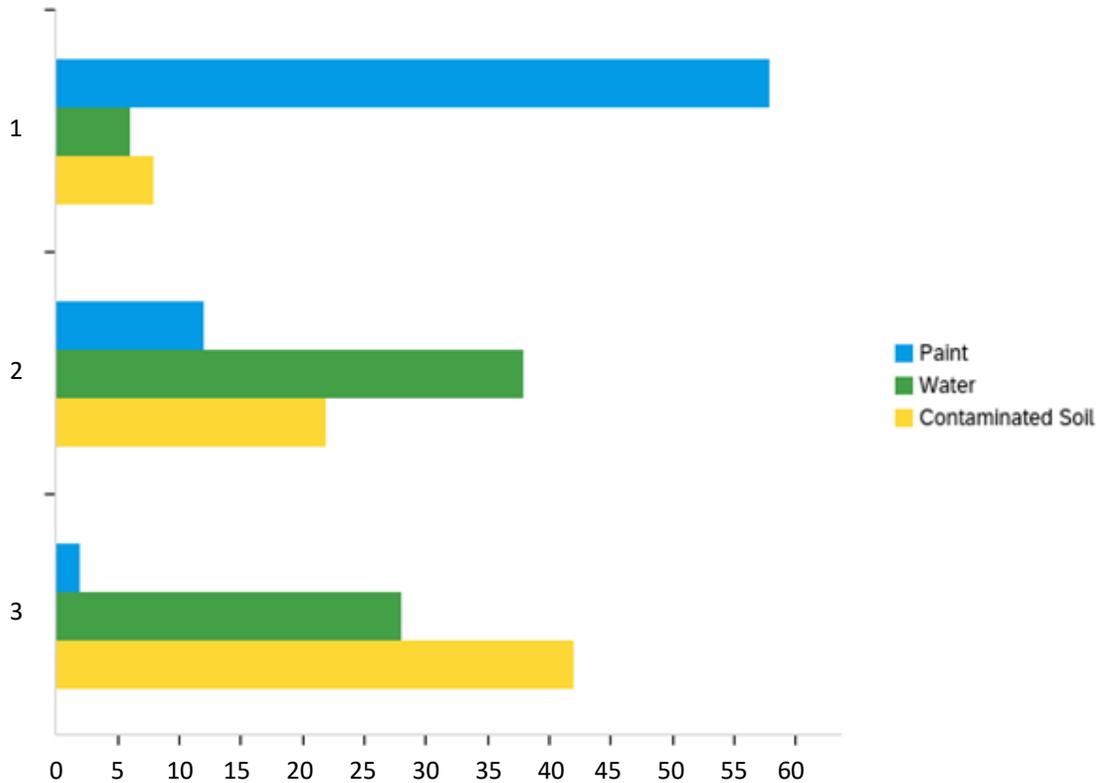
The text responses of those that selected "other (please specify)" included: built in 2012 and 2014 no lead; killz and repainting; I don't know; no lead hazard identified; all our units are post 1978; have not had to repair lead hazards yet.

Q9. There are several primary sources of lead poisoning associated with housing. Which of these primary sources of lead do you think is the most common issue in Iowa? Rank these sources from 1-3, 1 being the most common issue (drag and drop to rank).

Paint: N=72 for overall count; N=58 for rank of 1; N=12 for rank of 2; N=2 for rank of 3.

Water: N=72 for overall count; N=6 for rank of 1; N=38 for rank of 2; N=28 for rank of 3.

Contaminated soil: N=72 for overall count; N=8 for rank of 1; N=22 for rank of 2; N=42 for rank of 3.



## Recommendations

The IIPHRP developed recommendations based on results from the survey. The major needs identified in the survey were education surrounding lead paint rules and lead-safe work practices. Listed and described below are recommendations for IDPH to improve the outreach to the housing sector to increase knowledge and awareness.

- **Complete a more in-depth survey collecting demographic information.** This survey would require full IRB approval to gain more in-depth information regarding properties including all property addresses to identify age, property management information, and access to tenant information to broaden the audience. Information around motivations to repair lead-based paint hazards and a more in-depth understanding of barriers that are faced by pre-1978 property owners for remediation would be collected as well.
- **Create educational materials for the housing sector.** Based on the level of knowledge and awareness of lead-paint rules, educational materials should be developed and widely distributed on all lead paint rules. Another focus area of educational materials should be inclusive of lead-safe work practices. The last education content area that should be focused on is impact of lead on children. Although impact was understood by this group, it is important to frame the messages of lead-paint rules and lead-safe work practices in a way that highlights the impact on the health of children. To best reach the housing sector, wide distribution and outreach must occur.
- **Make the lead-certified contractor training more accessible.** Finding a lead-certified contractor was seen as a barrier to pre-1978 property owners/managers. Providing the lead-certification training online will provide a greater reach and accessibility to increase the number of lead-certified contractors there are in the state.
- **Create a housing list-serv.** Utilizing the contacts gained through the CLAW, create a broader, all-encompassing list-serve of housing contacts to use for additional education, outreach and information gathering.
- **Provide regular communication to the housing sector.** Utilizing an updated list-serv, provide regular (i.e. monthly, quarterly) information, education, and resources to members of the housing sector.