



Center for Urban and Regional Affairs

## KRIS NELSON COMMUNITY-BASED RESEARCH PROGRAM

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# **Conducting a Study on Lead Certification Compliance in Building Contractors and Regulation in Municipalities in Minnesota**

**Prepared in partnership with**  
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Thank You.

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# COMPLIANCE OF MUNICIPALITIES UNDER STATE CODE TO REQUIRE PROOF OF RRP CERTIFICATION FROM BUILDING CONTRACTORS AND COMPLIANCE OF BUILDING CONTRACTORS WITH THE EPA RULES FOR RRP CERTIFICATION IN MINNESOTA.

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## Lead Paint Rules

Lead paint is a hazard still found in much of the older housing stock in areas all around the state of Minnesota. The EPA rules for building contractors are to require certification for the Renovation, Repair, and Painting (RRP) of homes that were built prior to 1978, when lead was officially banned from paint. In addition to this, Minnesota state building code requires any municipality that has adopted the state building code to seek confirmation of this RRP certification from contractors upon applying for a building permit (Minnesota, 2018) (Minnesota Department of Labor, 2018).

### Purpose

The reasons for this research project are multi-fold. First, the EPA rules regarding lead paint and contractors have been in place since 2008, and universally enforced since 2010. The purpose of these rules, according to the EPA's lead paint website are:

... to protect the public from lead-based paint hazards associated with renovation, repair and painting activities. These activities can create hazardous lead dust when surfaces with lead paint, even from many decades ago, are disturbed. The rule requires workers to be certified and trained in the use of lead-safe work practices, and requires renovation, repair, and painting firms to be EPA-certified... (United States Environmental Protection Agency, 2018)

These rules have been enforced on an irregular basis in Minnesota partly because the nearest office of enforcement for the EPA is in Chicago, IL. Reports or complaints made about rule non-compliance in Minnesota would need to be addressed by an EPA enforcement officer from Chicago. Many barriers stand in the way to meaningful enforcement of the RRP rules, including distance and time. Anecdotally, the EPA enforcement was spotty and somewhat half-hazard when it was carried out at all. Therefore, it is in the best interest of citizens of Minnesota to have a more localized enforcement of the EPA RRP rules. The health effects of lead being introduced into the home setting can be disastrous to the occupants. Acute lead poisoning

to unsuspecting laborers is also an imminent risk if proper handling techniques are not observed. Acute lead poisoning can have effects seen in the neurological, gastrointestinal, and reproductive systems (New York State Department of Health, 2018). According to the state of New York's health department, sources of exposure to lead in adults is often due to jobs that are described as "...construction workers,...reconstruction workers,...painters,...remodelers and refinishers" and hobbies that might include 'home remodeling' (2018). In addition to this source of lead being dangerous to the workers themselves, dust or particulate that is brought into their own homes has the potential to poison any other person, including children (New York State Department of Health, 2018). To this end, this research study will supply statistical information to the state government through the Minnesota Department of Health to provide a scope for the enforcement of the EPA's RRP rules as the state of Minnesota has declared intentions, and passed legislation, to take enforcement of the RRP over from the EPA. This research will assist in guiding those efforts by framing the problem of compliance with RRP certification among contractors and municipalities in terms of where the problem is greatest. Moreover, analysis of the data will determine if the valuation of a project informs compliance, and if municipalities that have adopted the state building code have a higher compliance than municipalities that have not.

The second component of this project is the collecting of data from randomly selected census tracts across the state is to gauge the compliance of municipalities that have adopted state building code with requiring proof of RRP certification from building contractors before issuing building permits for homes built prior to 1978.

State building code 326B.194 subdivision 13:

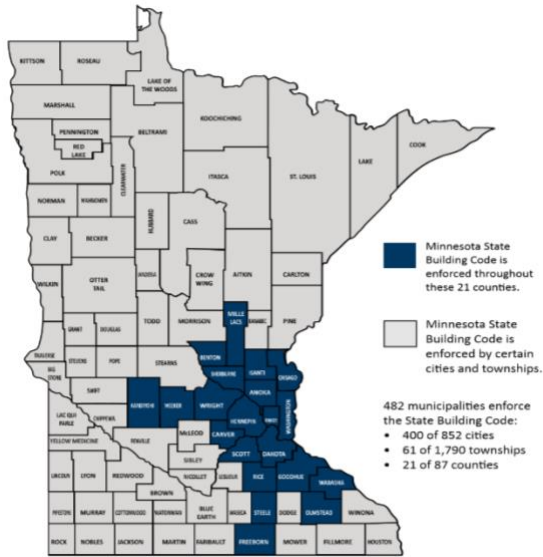
**Lead certification.** When issuing permits in compliance with the State Building Code to a residential building contractor, residential remodeler, manufactured home installer, or residential roofer licensed under section [326B.805](#), municipalities must verify lead certification qualifications of the licensee required under subdivision 14 for renovations performed on residential property constructed prior to 1978...

Subdivision. 14

**Pre-1978 structures.** A residential building contractor, residential remodeler, manufactured home installer, or residential roofer... performing renovation...on a residential structure constructed prior to 1978 must be certified in accordance with Code of Federal Regulations, title 40, section 745.89... Before performing the renovations...on a residential structure constructed prior to 1978, a licensee working on the structure must be able to provide to the commissioner information so that proof of certification can be obtained as required in this subdivision. The department shall provide on its website a link to the United States Environmental Protection Agency website for verification of certification of a licensee (Minnesota, 2018).

There are several counties shown in the map (Figure 1, Counties in MN that have adopted the state building code) below in blue that have all adopted the state building code. However, this is not a representation of all

the areas of Minnesota that have adopted the state building code, as some larger towns and cities have done so despite the county declining to adopt the code.



*This image is from the Minnesota Department of Labor website, [http://www.doli.state.mn.us/sites/default/files/pdf/bc\\_map\\_county\\_jurisdiction.pdf](http://www.doli.state.mn.us/sites/default/files/pdf/bc_map_county_jurisdiction.pdf) (2018). As can be seen, 21 of 87 counties have adopted the building code and have building inspectors to ensure compliance. Many townships and cities have also adopted the state building code and have inspectors to ensure compliance independent of the county.*

Figure 1: Counties in Minnesota that have adopted the state building code. (Minnesota Department of Labor, 2018)

If it is found that municipalities that have adopted state building codes are not requiring contractors to provide proof of RRP certification, it could be hypothesized that contractor’s compliance will be lower than in municipalities that do require proof of certification.

These rules are relevant to public health and the social determinants of health. The housing stock that is often in need of renovation and repair are likely occupied by lower income residents. People of color have a higher chance of being lower income, and therefore have a higher incidence of occupying homes that were built prior to 1978 (Minnesota Department of Health, 2018). The organization East Side Development Company has been combating this very problem in St. Paul, MN for 40 years. The residents of the East Side neighborhood are overwhelmingly low-income people of color- often immigrant and refugee populations.

One way that lead exposure is often flagged is through the testing of young children at wellness check-ups. In the East Side Neighborhood of St. Paul children are found to elevated blood lead levels at a rate of 3%, or 3-times higher than the state average of 1%. Concentrations of lead in blood is considered ‘high’ or ‘problematic’ if the concentration meets the CDC’s blood lead level (BLL) of concern- at least five- micrograms per deciliter of blood (5µg/dL) (United States Center for Disease Control (CDC), 2017). The American Academy of Pediatrics states that concentrations below this level still have serious and deleterious health effects on children (American Academy of Pediatrics, 2016).

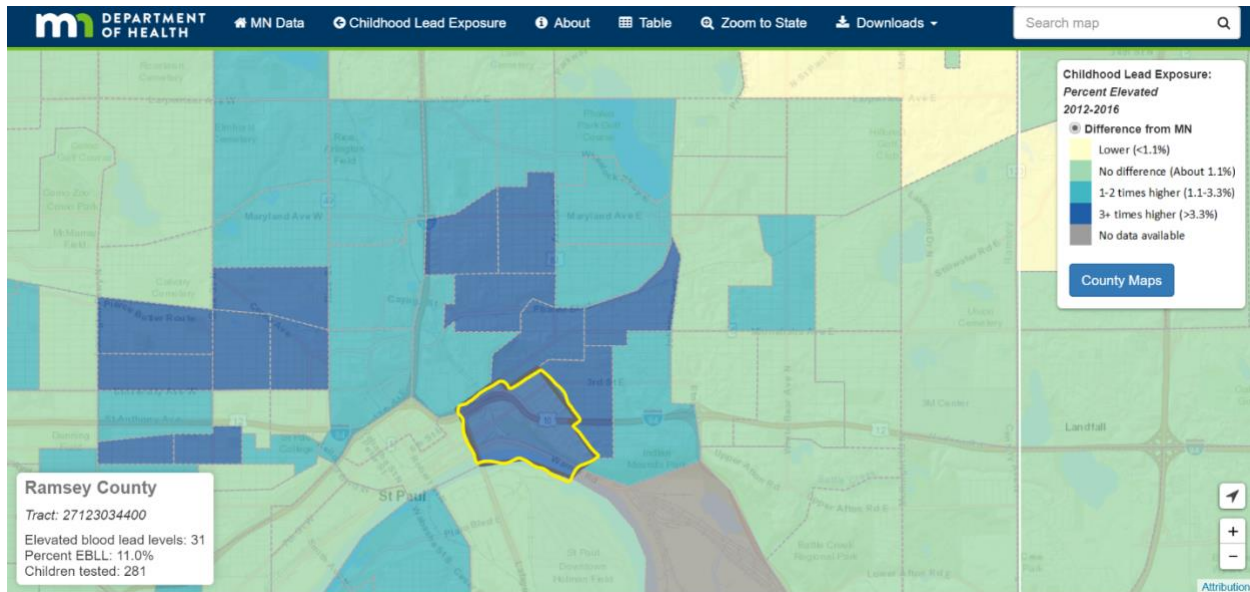


Figure 2: Ramsey County lead tracking map by census tract. Users can hover over any census tract in the state to see childhood lead blood levels that have been reported between the years of 2012-2016 (Minnesota Department of Health, 2018).

The area outlined in yellow in the map above (Minnesota Department of Health, 2018) shows a census tract in Ramsey county where the data collected shows 281 children were tested in the years of 2012-2016, and 31 of those children had elevated blood levels of more than 3 times higher than the CDC reference value (5 ug/dL). The data collected is from clinics that report to MDH and only data from children younger than 6 years-old is reported. Also, as the MDH website (2018) explains, children are not always consistently tested at well-child check-ups at ages that it is suggested for assorted reasons. Children in Minnesota are not universally tested for lead. The health impacts for children and families in Minnesota that have been exposed to lead in any dosage is not known. However, the effects of lead poisoning on the development of children is quite well understood, and the damage is irreparable (American Academy of Pediatrics, 2016) (United States Center for Disease Control (CDC), 2017). The impacts on communities, including education, health care, and even criminal justice could be heavily influenced by the continual exposure to lead (Drum, 2016). Therefore, this research project, along with other actions at various levels, feeds into and informs the overall work being done to eliminate the public's exposure to lead as much as possible.

## Methodology

The methodology used to gather data for analysis took place over several steps. Building permit *applications* were determined to be the best source for gathering the information that was necessary. Obtaining and entering the data from the building permit applications was then followed by searching for each contractor on the EPA website to determine whether they are RRP certified and whether the certification is current. Following this, each municipality's assessor's office was contacted and the age of each home that was obtained from the applications was verified in order to determine whether the RRP rules would apply.



Analysis of these outcomes will shed light on the problematic areas in the state that have higher non-compliance for RRP certification among contractors, along with whether the municipalities are enforcing the RRP rules standard with building code adoption.

## Discussion

Official analysis has not been completed on the data that was gathered for this study. However, some preliminary findings are that there is a great disparity of enforcement and following of the state building code by both contractors and municipalities. A fine point to make is that contractors are required to have the RRP certification regardless of whether the jurisdiction they are working in has adopted the state building code.

Most of the building permit applications do not ask for the RRP certification whether in state building code adopted municipalities or not. This should be the primary focus of interventions once the state takes the responsibility of enforcement over from the EPA. If contractors are unable to pull permits due to lack of RRP certification, more will consider this a more urgent need. However, some strategy should also be employed to address contractors' unwillingness to get the certification. There should also be strategic safeguards in place to prevent building contractors from avoiding the permitting process altogether in order to continue working without certification. One interesting assessment that might be made in the future is figuring out the behavior of avoiding this certification and how to create an intervention that speaks specifically to aspects of this behavior.

Another facet that should be taken under consideration is the 'take home' of lead by workers in industries like construction, painting, remodeling and renovation. Many times, contractors hire low-wage workers to complete work and do not actually risk being lead poisoned themselves. This may be part of the reason for lower compliance with the RRP rules. However, dust from lead settling on clothes and the body can be transferred to the workers' families and friends if it is not dealt with properly. Workers may be a good entry point to pressure contractors to obtain safety certifications around lead and other hazards, particularly if they risk their own children's well-being. Workers themselves should be trained on how to deal with lead should they suspect it might be present on a job. Reporting requirements might need to account for the fact that some workers may have indeterminate citizenship status, language barriers, or fears of losing income. Furthermore, the families that live in homes being renovated or remodeled may also be unknowingly exposed to lead dust if the contractor does not have RRP certification.

Further discussion and research will need to be initiated to plan interventions that will keep children from being exposed to lead in the first place. The EPA's rules for Remodeling, Renovation, and Paint are designed to create a healthier population through the prevention of lead poisoning. Minnesota will do well to take the enforcement of these rules into its own hands, as the EPA has not been as effective as needed in the past. Preventing exposure as the primary target, rather than treatment of lead poisoning, is a valuable and needed track of action. Much is being done, and the enforcement of the rules and regulations that are already in place is not only shrewd, but necessary.

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