

**Technical Assistance  
for Code Transformation  
and Innovation Collaborative  
(the TACTIC Project)**

**Final Report for Year Two**

by

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for the  
**Michigan Department of Health and Human Services,  
Child Lead Exposure Elimination Innovations Grant**

**Contract Number E20193423-00**

**May 31, 2020**

**National Center for  
HEALTHY HOUSING**

## **Table of Contents**

<b>Introduction</b>	<b>3</b>
<b>TACTIC Project Infographic</b>	<b>5</b>
<b>Year Two Implementation of Year One Recommendations</b>	<b>6</b>
Implementation Update for the City of Battle Creek	7
Implementation Update for the City of Grand Rapids	8
Michigan Housing Law and Regulations Update – Michigan House Bill 5362	9
<b>Year Two City Reports</b>	<b>12</b>
Final Report for the City of Bay City, Michigan	13
Appendix A: Elements of Effective Housing Code Enforcement Programs	28
Appendix B: Code Comparison Tool Results	32
Appendix C: TACTIC Site Visit Notes	38
Final Report for the City of Muskegon, Michigan	40
Appendix A: Elements of Effective Housing Code Enforcement Programs	55
Appendix B: Code Comparison Tool Results	59
Appendix C: TACTIC Site Visit Notes	65
<b>New Code Resources for Cities</b>	<b>66</b>
Implementation Guide	67
How to Make Proactive Rental Inspections Effective	76
<b>Attachments</b>	<b>81</b>
Battle Creek Summary of Recommendations and Implementation	82
Grand Rapids Lead Free Kids Advisory Committee Final Report	84

## Introduction

The National Center for Healthy Housing was awarded a second grant from the Michigan Department of Health and Human Services for June 2019-May 2020 to continue working with local jurisdictions in Michigan to improve their housing codes to prevent childhood lead exposure. In the first year of the project (2018-2019), we created city-specific reports for four local jurisdictions (Battle Creek, Detroit, Flint, and Grand Rapids); this year's progress builds on that work.

Our goal this year was to identify two new cities and continue working with three of the cities from the previous project year on implementing our recommendations. Our two new cities were Bay City and Muskegon, and we worked with city staff in each to create reports for these jurisdictions following the model laid out last year. Both of these cities are smaller than any of the cities we worked with in the previous year, so we're happy to see that the new reports are both helpful for their particular cities and expand the range of city models that others in and outside Michigan could follow.

The three locations we continued working with were Battle Creek, Grand Rapids, and Flint. We worked with city staff on implementation plans and presenting the TACTIC recommendations to stakeholders. Despite the COVID-19 pandemic, which understandably slowed progress at the city level in spring 2020, we are pleased to report progress in both Battle Creek and Grand Rapids on the development of local plans to implement portions of the TACTIC recommendations. However, while we spoke throughout the year with community partners and organizations in Flint about implementing the recommendations, we were unable to see progress at the governmental level due to a significant change in city leadership and staff following elections in November 2019.

We also spoke with staff at the state level about our recommendations for Michigan as a whole, which we had not anticipated in this year's workplan. We analyzed a proposed bill in the Michigan legislature this spring addressing this topic, and our analysis of that legislation is included in this report. We also created two new products: an implementation guide that any jurisdiction could use to improve their local housing codes, based on the TACTIC process and our experiences over the past two years, and a document on how to make proactive rental inspections (PRI) effective.

This year two final report includes the following:

- An infographic summary of the TACTIC project;
- Implementation of measures recommended in year one for Battle Creek and Grand Rapids;
- A review of Michigan House Bill 5362;
- Reports for the year two cities of Bay City and Muskegon;
- The TACTIC *Implementation Guide*, a new NCHH code resource;
- *How to Make Proactive Rental Inspections Effective*, a new NCHH code resource;

- The Battle Creek Summary of Recommendations and Implementation; and
- The Grand Rapids Lead Free Kids Advisory Committee Final Report

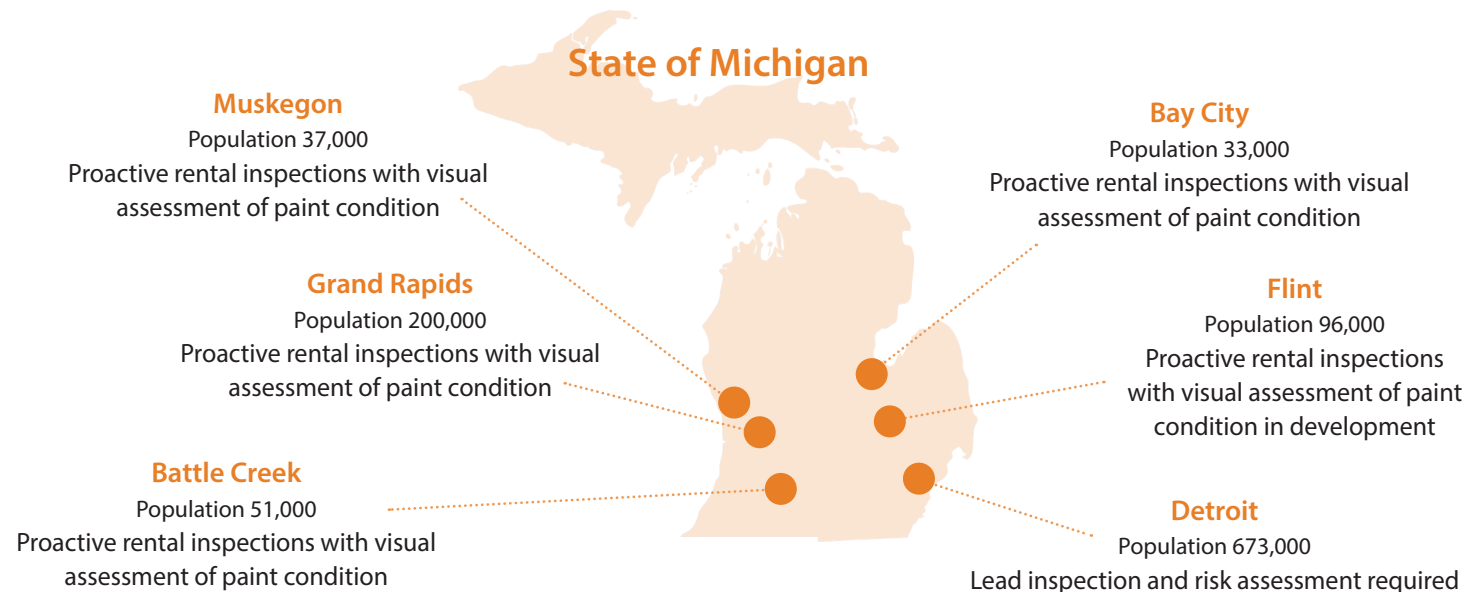
# Technical Assistance for Code Transformation Innovation Collaborative (TACTIC)

## TACTIC OVERVIEW

Under a Child Lead Exposure Elimination Innovations Grant from the Michigan Department of Health and Human Services, the National Center for Healthy Housing (NCHH) worked with six cities to improve their housing codes to prevent childhood lead poisoning. The Technical Assistance for Code Transformation Innovation Collaborative (TACTIC) met with city officials and community partners from Battle Creek, Bay City, Detroit, Flint, Grand Rapids, and Muskegon. In addition to descriptions of best practices from across the country, each city report includes an analysis of the city's present strengths and recommendations for how they could improve their code language, staffing levels and training, enforcement practices, and community engagement to address lead paint hazards proactively. In the statewide report, we examined Michigan lead laws and regulations, creating recommendations for how each could be improved, as well as how the state could support local efforts. For a complete overview of TACTIC, please visit [http://bit.ly/Blog\\_TACTIC](http://bit.ly/Blog_TACTIC).

## TACTIC LOCATIONS

TACTIC provided city-specific reports for six locations across Michigan. The reports reflected the unique challenges and opportunities in each city, shaped by factors including their populations, existing codes, and enforcement effectiveness.



## TACTIC SUPPLEMENTS



**Implementation Guide.** This guide includes a summary of TACTIC recommendations, a process for assessing the current codes and enforcement practices in your community, and a list of best practices when implementing TACTIC recommendations with lessons learned from city experiences during this project.



**How to Make Proactive Rental Inspections Effective.** An effective system looks beyond enforcement and supports residents and property owners in taking the steps they need to ensure safer home environments. Cities can use this guide to explore tools and models for the eight components of an effective code enforcement program that go beyond PRI and enforcement.



**Elements of Effective Housing Code Enforcement Programs.** An abridged version of *Up to Code*, originally developed by ChangeLab Solutions, is included in the TACTIC reports to provide a primer on the elements of a holistic and effective code enforcement program.

# **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project)**

## **Year Two Implementation of Year One Recommendations**

## **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project) – Year 2 (2019-2020): Implementation Update for the City of Battle Creek**

During 2019, an implementation plan was drafted for Battle Creek to assess how to proceed on the Year 1 recommendations (attached).

Two conference calls were held on Jan 15, 2020, and Feb 25, 2020. Further monthly calls were scheduled for the remainder of the project period but had to be cancelled due to the COVID-19 pandemic, as many city staff were focused on pandemic response. These calls were attended by:

- Jason Francisco – Code Compliance Officer, City of Battle Creek;
- Marcie Gillette – Community Services Director, City of Battle Creek;
- Jonathan Wilson – Deputy Director, National Center for Healthy Housing;
- Sarah Goodwin – Policy Analyst, National Center for Healthy Housing;
- Anna Plankey – Junior Analyst, National Center for Healthy Housing;
- David Jacobs – Chief Scientist, National Center for Healthy Housing.

After an introduction and description of this year's project, the attendees discussed Battle Creek's capacity to implement Year 1 recommendations. The city sees some recommendations as "low-hanging fruit" and within their capacity to accomplish, but for others there is neither staffing nor funding to move forward. Areas of opportunity include additional lead training, lead certification, increasing knowledge and expertise, tenant and landlord education, and amending violation notices. The city has a large tenant and landlord advocacy group. Lead testing during time of rental inspection presents a larger challenge due to the time and cost, and the city does not believe it is feasible to charge landlords with additional registration or inspection fees.

Battle Creek currently employs five code compliance officers. The lead program provides brochures on lead-safe best practices and plans to host a paint program in the summer of 2020, which has been delayed due to the COVID-19 pandemic. The lead program inspects both owner-occupied and rental properties. The city reports that about 94% of rental units are registered.

Regarding public education, the possibility of recommending or even requiring landlords to watch informational videos on lead paint, especially if they are accessing funding from the city and the possibility of adding dust to the lead ordinance (not just lead paint) was considered. The city is the recipient of a HUD grant for lead-based paint hazard control and is applying for additional funding.

Battle Creek enjoys a working relationship with a countywide lead task force, which allows access to lead poisoning data. The city also intends to begin sharing its data on properties with deteriorated paint and noncompliant properties back to the county.

The existing code inspectors are already at full capacity – Battle Creek is a large city geographically and has only five code compliance officers; increased staffing is not viable. Additional consultation may occur in the context of implementing the new HUD Lead Hazard Reduction Grant program.



## **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project) – Year 2 (2019-2020): Implementation Update for the City of Grand Rapids**

On February 25, 2020, the Lead Free Kids GR (Grand Rapids) Lead Free Advisory Committee issued its final report (attached). The committee met bimonthly for a total of nine meetings between August 2018 and December 2019. In that time, the committee heard from the Kent County Health Department, the Michigan Department of Health and Human Services (MDHHS), the National Center for Healthy Housing, Healthy Homes Coalition of West Michigan, Parents for Healthy Homes, the Rental Property Owner’s Association, and the city’s Housing Rehabilitation Office. There were 21 recommendations outlined for further consideration by the City of Grand Rapids. The recommendations related to codes included the following:

1. Amend the city’s housing code to require the following in the rental certification process: lead-based paint testing in homes built before 1978; remediation of lead-based paint hazards identified; and consider making this a targeted approach.
2. Increase funding and capacity for training, code compliance, and enforcement.
3. Before issuing permits, verify contractor certification in lead-safe work practices for renovation, repair, and painting (RRP) projects.

On March 3, 2020, Mayor Rosalynn Bliss discussed lead poisoning prevention in her State of the City address (see <https://www.mlive.com/news/grand-rapids/2020/03/takeaways-from-mayors-2020-grand-rapids-state-of-the-city.html>). She said the city will also look to implement recommendations from the Lead Free Advisory Committee to improve the housing code, inspections, and enforcement procedures. Lead poisoning prevention was one of her five key areas in that city. The involvement of the mayor has been a distinguishing feature of the TACTIC project work in Grand Rapids.

In December 2019, the city council and the county formed a “Lead Action Team,” which is primarily a government public education effort. The press conference (available at [https://youtu.be/7\\_eU988Bkyg](https://youtu.be/7_eU988Bkyg)) did not explicitly address code changes, although there was another press conference regarding enforcement at the county prosecutor level. There was a more explicit commitment to reform the code and implement a code-related lead inspection on May 19, 2020, at a city council meeting (at 1:35 here: <https://www.facebook.com/CityofGrandRapids/videos/652766508987031/>).

After the March event, the city was focused on the COVID-19 pandemic response.

See also: *Lead Free Kids Grand Rapids Advisory Committee Final Report* (attachment).

## Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project) – Year 2 (2019-2020): Michigan Housing Law and Regulations Update – Michigan House Bill 5362

The 2019 Technical Assistance for Code Transformation and Innovation Collaborative (TACTIC) [state report](#) recommended that Michigan’s housing laws and regulations explicitly recognize lead-based paint. Michigan’s current laws only implicitly require that the state’s housing should not cause disease and injury. In January 2020, legislators in the Michigan House of Representatives [introduced a package of bills](#) intended to strengthen Michigan’s laws related to lead-poisoning prevention. Among the bills introduced was [House Bill 5362](#), which would amend sections of the [Housing Law of Michigan Act 167 of 1917](#). The bill addresses sections regarding housing inspections conducted by local jurisdictions, certificates of compliance, and remedies of violations. House Bill 5362 leverages language of the [Public Health Code Act 368 of 1978](#) to amend, define, and specify terms of “inspection” and “abatement” as they relate to lead hazards in the existing housing bill. If passed, this bill will allow the procedures of inspections and abatement to target lead-based paint.

While housing inspections under this legislation would still largely rely on a tenant complaint-based system, this bill would allow inspections to address lead-based paint explicitly. Specifically, the amendment calls for inspection to be defined as it appears in the public health code, which states, “‘Inspection’ means a surface-by-surface investigation in target housing or a child occupied facility to determine the presence of lead-based paint...”<sup>1</sup> Without this specification, the Housing Law of Michigan refers to deteriorated paint but in a general sense; with it, the legislation explicitly would reference lead-based paint, directly tying its identification to the inspection process. This proposal within House Bill 5362 to define inspections as a process specifically designed to identify lead-based paint serves as an improvement and strengthens protections for children from lead hazards in the home.

In addition to addressing lead-based paint specifically during the inspection process, House Bill 5362 proposes an amendment to Michigan’s housing law allowing permanent elimination of lead-based paint hazards during abatement. Under the Housing Law of Michigan’s Sections 130 and 134, which address enforcement of compliance, this new bill again utilizes the public health code to define abatement as “...a measure or set of measures designed to permanently eliminate lead-based paint hazards.”<sup>2</sup> Furthermore, House Bill 5362’s amendment clarifies its definition of *abatement*, stating that abatement does not include any measure or activity “...designed to

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<sup>1</sup> Public Health Code Act 368 of 1978. Retrieved May 8, 2020 from <http://www.legislature.mi.gov/documents/mcl/pdf/mcl-act-368-of-1978.pdf>

<sup>2</sup> Public Health Code Act 368 of 1978. Retrieved May 8, 2020 from <http://www.legislature.mi.gov/documents/mcl/pdf/mcl-act-368-of-1978.pdf>

temporarily, but not permanently, reduce a lead-based paint hazard.”<sup>3</sup> The new bill then goes on to include the removal of dust lead hazards and removal or covering of soil lead hazards explicitly in its language as well; this reinforces that this portion of the bill is designed specifically to promote the permanent elimination of lead paint sources in Michigan homes. By incorporating these definitions into the Housing Law of Michigan Act, House Bill 5362 establishes steps toward addressing alternate exposures of lead in addition to paint, including dust and soil. This bill also purposefully includes this definition of abatement that allows permanent elimination of lead-based paint hazards in the context of the sections of the existing housing bill that are specific to landlord and owner compliance. In doing so, this bill supports residents and tenants.

House Bill 5362 has been referred to the Committee on Regulatory Reform. As of this writing, no committee meetings have been scheduled to consider the bill.

By leveraging existing language of the Public Health Code Act and incorporating it into the Housing Law of Michigan Act 167 of 1917, House Bill 5362 would strengthen inspections and abatement when addressing lead poisoning in the state’s housing. The amendments proposed by House Bill 5362 do not define lead-based paint as a “nuisance,” as recommended in the 2019 TACTIC report, but they make important progress toward the report’s first recommendation to recognize lead-based paint explicitly.

If passed, this bill will significantly strengthen legislative efforts to eliminate lead poisoning from the state’s infrastructure. By targeting inspections and abatement specifically in the context of violations and enforcement of compliance, House Bill 5362 would reinforce and improve existing statewide legislation and, therefore, further empower local municipalities and their ordinances that seek to address childhood lead poisoning proactively.

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<sup>3</sup> Public Health Code Act 368 of 1978. Retrieved May 8, 2020 from <http://www.legislature.mi.gov/documents/mcl/pdf/mcl-act-368-of-1978.pdf>

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**Year Two City Reports**

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## **Final Report for the City of Bay City, Michigan: Table of Contents**

<b>Summary</b>	<b>15</b>
<b>Summary of Recommendations</b>	<b>15</b>
<b>Introduction</b>	<b>16</b>
<b>How Housing Codes Can Help Prevent Childhood Lead Poisoning</b>	<b>16</b>
<b>Key Characteristics of Bay City</b>	<b>17</b>
<b>National Best Practices</b>	<b>18</b>
<b>Methods</b>	<b>20</b>
<b>Results and Recommendations</b>	<b>20</b>
<b>Code Language</b>	<b>20</b>
<b>Staffing and Enforcement</b>	<b>22</b>
<b>Training</b>	<b>23</b>
<b>Implementation Considerations – Involving the Public</b>	<b>24</b>
<b>Conclusions</b>	<b>25</b>
<b>Acknowledgments</b>	<b>26</b>
<b>Appendices</b>	<b>27</b>
<b>Appendix A: Elements of Effective Housing Code Enforcement Programs</b>	<b>28</b>
<b>Appendix B: Code Comparison Tool Results</b>	<b>32</b>
<b>Appendix C: TACTIC Site Visit Notes</b>	<b>38</b>

## Summary

Bay City requires a certificate of compliance for its rental properties. Rental properties must be registered annually and undergo a visual inspection on a regular three-year schedule. These provisions are important strengths that can be leveraged to help prevent lead exposure in children.

Bay City has adopted the 2012 International Property Maintenance Code (IPMC) for its rental housing stock code. The IPMC provides for all paint to be kept in an intact condition but does not require any actual testing of paint, dust, or soil to determine lead content. Such measurements might be made only after the health department has determined that a child has already developed an elevated blood lead level. Other best practices for rental housing codes across the country provide for proactive paint, dust, or soil testing, instead of only requiring such testing after a child has been exposed.

This report describes the current Bay City code process and provides recommendations on improvements to its housing code and associated inspection, enforcement procedures, staffing, public education, and other related matters. Although we submitted a draft report on March 27, 2020, city personnel were not able to be reached, likely due to the more pressing need to meet COVID-19 pandemic duties. We may update this final report when conditions permit. This report does not necessarily represent the views of the Bay City government. We thank them for meeting with us. This project was funded by the Michigan Department of Health and Human Services, Child Lead Exposure Elimination Innovations Grant, contract number E20193423-00.

## Summary of Recommendations

Require testing of deteriorated lead paint and dust as part of the Certificate of Compliance to determine actual risk of lead hazards. The current practice of visually examining paint is insufficient, because the lead content of deteriorated paint and dust cannot be seen by the naked eye.

Change the existing housing code language to require remediation of deteriorated lead-based paint using lead-safe work practices and clearance dust testing in all rental units in which young children reside, are expected to reside, or could reside or visit. The National Healthy Housing Standard (available at <https://nchh.org/tools-and-data/housing-code-tools/national-healthy-housing-standard/>) may be utilized as a model code. The dust testing should comply with the recent lead dust guidance values established by the U.S. Department of Housing and Urban Development for its lead hazard control grantees.

Train housing code inspectors to collect paint and dust samples properly as part of code inspections, instead of only doing so after a child has already been exposed. One of Bay City's code inspectors is already trained and certified as a lead-based paint risk assessor/inspector.

Other local officials employed as lead-based paint risk assessors could be deputized as code inspectors.

Amend the language of the code violation notices to include deteriorated lead-based paint and hazardous dust lead levels. The current language seems to involve only deteriorated paint, not deteriorated *lead-based* paint.

Involve the public in proposed changes to the code and seek comment. This includes providing for the protection of tenants during the implementation of code changes.

Facilitate data sharing between the city and the county health department. The city could provide a list of homes with a higher risk of hazards, using variables such as chipped paint and lack of compliance.

Public education efforts should include the importance of deteriorated lead-based paint and the associated contaminated dust and soil it generates. Previous public education efforts have resulted in an increase in voluntary child lead testing; future efforts could include more information about the importance of home testing.

Bay City should evaluate the results of these changes by documenting changes in housing quality, compliance time, complaints, and childhood blood lead levels. Other factors to consider in evaluation include census tract or neighborhood comparisons to ensure the system is monitoring effectively and equitably.

Work with community-based programs to expand capacity to educate landlords and residents, assistance with temporary relocation, and expand referrals to social services for other needs identified in the home.

Consider increasing funding and capacity for code compliance. The city's code program is currently only funded by its revenue; other options include using Community Development Block Grant (CDBG) or local funding. The city could also consider applying for a HUD Lead Hazard Control Grant to assist property owners with abatement costs.

## Introduction

### How Housing Codes Can Help Prevent Childhood Lead Poisoning

Housing quality is an important social determinant of health in general and in childhood lead poisoning prevention specifically. Yet the housing and health sectors are typically governed by separate fragmented and isolated systems. Although today's housing codes originated over a century ago in the sanitation movement to combat health problems such as cholera, tuberculosis, and typhoid, current codes (with important exceptions described below) typically refer housing-related lead paint problems to local health departments instead of using the code



process to identify and correct such lead hazards. Health departments often focus on identifying lead hazards only after an elevated blood lead level has occurred.

This secondary prevention reactive approach hampers the application of the existing housing inspectorate and code systems to detect and correct lead hazards in housing *before* children have been exposed. Furthermore, housing codes in many jurisdictions are driven largely by complaint-driven reactive enforcement systems. In many cases, local housing codes are either silent on correction of lead hazards or defer to specialized lead risk assessments by local health departments. An effective code enforcement system can be a powerful tool for improving and protecting residents from lead exposure. Appendix A describes key elements of an effective system.

## **Key Characteristics of Bay City**

Bay City has a population of about 33,736 (2017 estimates), 1,954 of whom are children 0-5 years old. Bay City has 14,627 occupied housing units, 30% (4,252) of which are rentals. Based on Bay City's population data, an estimated 568 of these units would have children under the age of six living in them. An estimated 90% (3,858) of the rental housing units in Bay City were built before 1979 (lead paint was banned from residential units in 1978 by the federal government). Lead paint is likely to be a hazard in a high number of Bay City homes.

Bay City requires that all rental units be registered and pass a rental inspection to obtain a certificate of compliance every three years. About 2,800 (65%) rental units, registered. Bay City employs two full-time code inspectors and one part-time inspector, who oversees vacant buildings. One of the full-time inspectors and the part-time inspector are both trained in lead risk assessments/inspections, as well as the city's deputy building official. It takes an inspector roughly 30 to 45 minutes to complete an inspection.

Bay City staff report that it typically takes three inspections to get a property into compliance. and about 70-75% of the properties require at least one follow-up inspection. Landlords pay an annual rental fee of \$125 for the first unit and \$35 for each additional unit. There is no fee for the first and second inspection. Common violations include missing smoke detectors, faulty stairs or handrails, and chipping or peeling paint. Staff estimate that about 80% of the homes in Bay City have paint issues.

To enforce the program, inspectors levy a \$100 fine and notice of violation if there is no response after two inspections. The property owner then has 10 days to respond to the city with a timetable to complete the work and pay the fine. If there is no response after the 10 days, the city will issue a civil infraction notice and schedule a hearing with the court. Each year, the city issues about 100 notices of violation and takes about 10 cases to court.

## **National Best Practices**

Several municipalities across the country have taken action to address lead hazards in housing through codes, which are reviewed briefly here.

For example, in December 2005, Rochester (NY) passed an ordinance requiring regular inspections of most pre-1978 rental housing for lead paint hazards. Housing inspections typically occur every three years. To receive a certificate of occupancy, property owners must correct identified lead hazard violations (if any). Code inspectors examine paint condition and if it is intact, then they will collect dust wipe samples to ensure the home is safe for children. If paint is not intact, lead-safe work practices must be used followed by dust testing to ensure cleanup is adequate (unless the home has been found to be free of lead-based paint). The city maintains an online database of all lead-safe units and properties granted a certificate. The code does not appear to have significantly impacted the housing market in Rochester, a key concern of code officials. Landlords have now accepted it as a routine cost of business (see <https://www.cityofrochester.gov/article.aspx?id=8589935004>). As of August 28, 2018, nearly 15 years since the ordinance's approval, the City of Rochester has inspected 166,906 individual dwelling units (see <https://www.cityofrochester.gov/lead/>). Data show that blood lead levels in Rochester improved nearly twice as fast compared to the rest of the state. Eighty-six percent of code inspections did not have an exterior lead violation, and 88% of those with a violation had complied with remediation as of August 2018. For interiors, of the 166,906 units inspected, 95% passed the initial visual inspection; and among those with an interior violation, 84% had complied as of June 30, 2018. Of the 4,141 units cited with a lead dust hazard, 98% have complied as of June 30, 2018. Ninety percent of the units subjected to dust wipe testing (over 30,000 units as of 2016) passed. During the first 12 years, the City of Rochester has issued 782 vacate orders for situations with severe hazards that put children at risk and 3,418 tickets for noncompliance. The frequency of violations has declined in recent years, as landlords know what to expect. Furthermore, the ordinance has created a demand for more private inspectors to perform clearance testing; the increased competition has resulted in a price reduction. Before the law was passed, a clearance test cost about \$350 per unit; the cost is now about \$125 per unit.

In Maryland, owners of older residential rental properties must register their properties annually with the Department of the Environment. Private inspectors issue a lead paint risk reduction certificate for each dwelling that passes the inspection, which includes both a visual examination of paint condition and dust lead testing. Rental properties covered by the law must be free of chipping, peeling paint and lead contaminated dust. To qualify for registration, owners must hire a certified contractor to address any defective paint and have an accredited lead paint inspector verify compliance before any change in occupancy. Inspectors issue a lead paint risk reduction certificate for each dwelling unit that passes the inspection. Whenever a tenant notifies an owner that there is defective paint or a child with an elevated blood lead

level, the owner has 30 days to conduct modified risk reduction measures and pass lead inspection certification. The rental property owner is responsible for temporarily relocating the family to a lead-safe or lead-free dwelling while the original dwelling undergoes risk reduction measures. A key component in Maryland's substantial decline in childhood lead poisoning has been its strong public enforcement of the Maryland Reduction of Lead Risk in Housing Act, coupled with local enforcement coordination and private enforcement actions by nonprofit agencies and *pro se* tenants. The Maryland Department of the Environment files 500 to 800 violation notices annually, and a team from the state's attorney general's office is responsible for enforcing actions against noncompliant owners. Another highly effective best practice has been Maryland's policy of pursuing enforcement against a rental property owner's entire noncompliant housing portfolio once enforcement actions have been initiated against any one of the owner's properties. Local housing code enforcement and landlord licensing officials at the city and county level also help coordinate enforcement by referring noncompliant properties in their jurisdictions to MDE for enforcement of the registration and risk reduction requirements.

Rhode Island passed the Lead Hazard Mitigation Act in 2002 and implemented code regulations in 2004. Before any change in ownership or tenancy of a property and at least every two years, the property owner must have the property inspected and demonstrate via a certificate of conformance (COC) or a lead-safe or lead-free certificate that the dwelling is safe for children. Establishing lead safety includes dust testing. Under the law, rental property owners are required to attend a training on unsafe lead conditions, inspect/repair any lead hazards at their properties, make residents aware of their findings and actions, address residents' lead-hazard concerns, follow lead-safe work practices during maintenance, and verify each unit's compliance through a lead inspector. Typically, the owner must have the property inspected every two years and prove its safety for children by showing a COC or a lead-safe or lead-free certificate. Since the law's enactment, the state has been challenged by compliance. In 2014, when the Providence Plan completed an evaluation of the Lead Hazard Mitigation Law, it found that only 20% of the covered properties had complied with the regulations within the first five years of implementation. Several cities have taken steps to improve enforcement. Providence, for example, created a separate division of Housing Court to address lead violations. The Inspection and Standards division reported that of 484 of 537 lead violation cases filed over the first four years resulted in corrective action. An analysis conducted by the Rhode Island Department of Health discovered that there was a significant decline in children with elevated blood lead levels in Providence between 2012 and 2013. Notably, the declines coincided with the implementation of the building permitting requirements and the lead docket.

The National Healthy Housing Standard, a model code, provides that lead levels at or above federal regulatory limits are defined as hazards and must be remediated. Those levels include deteriorated lead paint (0.5% by weight or 1.0 milligram per square centimeter); dust (40 micrograms of lead dust per square foot [ $\mu\text{g}/\text{ft}^2$ ] on floors and 100  $\mu\text{g}/\text{ft}^2$  on windowsills). The

standard also states that painted surfaces shall be maintained intact and, except for paint tested and found not to contain lead, deteriorated paint at a property built before 1978 shall be repaired using lead-safe work practices and follow-up dust testing.

Many federally assisted housing programs, including public housing, Section 8 project-based assistance, and federally assisted housing rehabilitation programs also require paint and dust testing, regardless of whether a child with an elevated blood lead level resides there, pursuant to the Lead-Safe Housing Rule (24 CFR Part 35).

Additional case studies of best practices across the nation for childhood lead poisoning prevention are available at <https://nchh.org/who-we-are/nchh-publications/case-studies/lpp-stories-case-studies/>.

## Methods

We conducted several conference calls with key local personnel to introduce the project, describe the process, and identify current codes from December 2019 through February 2020. After reviewing the local code, we used the NCHH we used the NCHH Code Comparison Tool (<https://nchh.org/tools-and-data/housing-code-tools/cct/>) to compare Bay City's housing code with best practices (see Appendix B).

On March 4, 2020, we conducted an on-site visit, which was attended by Debbie Kiesel, Community Development Director; and Sue Coggin, Code Enforcement Coordinator. Representing the National Center for Healthy Housing were David Jacobs and Sarah Goodwin. NCHH provided a draft report to the jurisdiction on March 27, 2020, but we were not able to obtain a review from Bay City personnel, who were likely assigned to more pressing duties related to the COVID-19 pandemic. We may integrate any comments we receive at a future date. This report does not represent the views of Bay City government.

## Results and Recommendations

### Code Language

Bay City has a rental property registration process and a planned proactive scheduled inspection process, both of which are enormous strengths. This is superior to a solely complaint-driven reactive code inspection system, although many jurisdictions have moved to proactive systems in recent years. (Of course, the complaint-driven process needs to continue to respond to violations that may occur outside of the periodic scheduled inspection process.) The reactive system often relies on injuries, illnesses, or a resident's complaint and often occurs only after conditions have become quite serious. The reactive system also tends to produce more litigation and creates uncertainty in the rental market, because landlords may have to absorb unanticipated property repair and litigation expenses. It can also be problematic for

residents who either don't know their rights or are fearful of exercising them (e.g., undocumented residents, tenants fearing eviction), leading to inequities. The presence of a proactive scheduled inspection process is a strength upon which the Bay City community can build. The decrease in severe violations and high number of completed inspections demonstrate the existing effectiveness of this program.

One area for improvement is the language of the code itself, which only restricts violations to visibly deteriorated paint, regardless of whether it actually contains lead. Of course, deteriorated nonlead paint should be corrected to help prevent rot and other matters; but the current code language in Bay City is drawn from the International Property Maintenance Code, which has been criticized by the National Center for Healthy Housing and others for its failure to identify actual lead hazards (see <https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/icc/>). It also diverts attention from where it is most needed, because most paint, even in older housing stock, does not actually contain lead.

One option would be to require actual testing of deteriorated paint to determine if it has levels of lead above the federal standards, which Michigan has adopted. This can be achieved by simply adopting the National Healthy Housing Standard, which would also have the added benefit of addressing other housing conditions that could adversely affect health. There are two methods of measuring lead in paint:

1. Careful collection of all layers of paint from deteriorated surfaces, followed by laboratory analysis accredited under the EPA National Lead Laboratory Accreditation program; or
2. On-site analysis using portable x-ray fluorescence (XRF) lead paint analyzers.

Either method is acceptable. Paint chip collection has lower up-front costs but can be tedious and removes paint from a surface that must be sealed following collection. XRFs have a higher up-front cost but yield immediate results and do not involve destructive paint chip sampling.

If deteriorated paint is found to contain lead, then remediation can occur using lead-safe work practices (essentially wet scraping to reduce dust emissions, followed by application of a durable two-coat compatible paint film, followed by specialized cleaning and dust testing). Dust testing is a relatively simple procedure carried out over a defined surface area on floors and windowsills, but the testing must be performed by trained and certified personnel and also requires laboratory analysis.

Another option is to incorporate code language that follows the Rochester model, which requires all paint to be intact, but also provides for dust lead testing even when paint is intact. Dust lead is known to be the main route of acute exposure for most children via normal hand-to-mouth contact, contamination of hands, toys and other objects, ingestion of lead dust, and subsequent absorption into the child's body. The Rochester model helps to address situations

in which landlords have repainted but may not have used lead-safe work practices or cleanup procedures. Disturbance of only a small amount of lead paint can cause major dust lead contamination. For example, consider the case of paint removal using dry scraping or sanding that turns the lead paint into lead dust. Removing only one square foot of lead paint containing the minimum amount of lead regulated by the federal government ( $1 \text{ mg/cm}^2$ ) and then distributing that lead dust over an average 10-foot-by-10-foot room results in a dust lead level of  $9300 \text{ } \mu\text{g/ft}^2$ , which is well over the EPA limit of  $40 \text{ } \mu\text{g/ft}^2$  for floors. By conducting dust lead testing, inadequate dust containment and cleanup practices can be detected before a child has been needlessly exposed. Lead-safe work practices (in brief) involve occupant and worker protection, containment, use of wet methods during paint removal to minimize dust emission, use of durable new paint (or other coatings, enclosures, or building component replacements), followed by specialized cleanup methods and clearance dust testing to ensure cleaning has been adequate. Proactive dust testing and lead-safe work practices are also required in Maryland, the District of Columbia, and most federally assisted housing programs.

A final option would be to require lead risk assessments followed by remediation in all older family rental properties. Risk assessments measure lead content in deteriorated paint, dust, and bare soil. Detroit is currently pursuing this approach on a ZIP-code-by-ZIP-code basis, and it is the standard of care in most federally assisted housing programs and in HUD's Lead Hazard Control Grant program.

Any of these methods would require changes to the city code and could be implemented as the regular schedule of rental inspections continues. This process would allow for the city to notify the community and property owners of the incoming requirements, giving time for owners to address hazards before being met with an inspection and potential citation.

## **Staffing and Enforcement**

Improving the language in the code will ultimately be ineffective if it is not actually obeyed and enforced. Fortunately, Bay City has a strong code staff in place, with two full-time and one part-time code officers employed.

U.S. Census data (2017) for Bay City indicates that there are 1,954 children under six years old, the age at which blood lead levels typically reach their peak. If there are 14,627 occupied housing units and 30% are rental units, then there could be about 586 young children residing in rental units in Bay City. Although this figure assumes there is one young child per unit, it does not include other units that children may frequent, such as residential day care, schools, et cetera, suggesting this is a reasonable assumption.

The estimated time it would take a trained code inspector to perform a visual examination of paint (and other housing conditions), collect paint chips from deteriorated surfaces, and collect dust wipe samples from floors and windowsills in an average of four rooms per unit is

approximately one hour (not including travel, administrative, and report preparation time). The current code inspection process, which is limited to visually examining housing conditions, takes about 30-45 minutes per unit.

Staffing needs can be estimated as follows, assuming a three-year inspection cycle:

*586 rental units with young children/3-year inspection cycle = 195 rental units/year*

*195 rental units/year x 1 hour/rental unit = 195 person-hours/year*

If we assume that there are a total of 2,080 total hours per inspector per year available, it is reasonable to assume that about 40% of that time will need to be devoted to travel to housing units to be inspected, report preparation, training, and follow-up interaction with owners and in some cases interaction and testimony before administrative judges or others in the case of noncompliance.

*40% x 195 person-hours/year = 78 hours/year administrative.*

Thus, total personnel need could be as follows:

*195 person-hours/year for inspections + 78 person-hours/year for travel and other administrative duties = about 273 person-hours/year.*

In short, this would appear to mean that no more than one additional staff would need to be hired.

Alternatively, if regular code inspections take 30 minutes/unit and collection of dust wipes and paint chip samples takes another hour per unit, then the number of code inspectors should increase by a factor of two. This suggests the city should hire at least two additional code inspectors to absorb the burden of additional paint chip and dust wipe sample collection.

Another consideration is how many of the new citations will fall into noncompliance and require court time. Currently, the majority of citations are completed within three inspections, but city officials do sometimes have to spend time enforcing noncompliance in court. Present case load for city codes is only about 10 cases a year, but staff do have to write about 100 notices a year.

## **Training**

Housing code inspectors in Bay City currently undergo on-the-job training and short training sessions to fulfill their current duties. However, if they are also charged with collecting dust wipe and deteriorated paint chip samples, they will need to be certified to do so under Michigan law. This is typically achieved with a two-day training course. Code inspectors in Rochester, NY, and elsewhere are cross-trained to enable them to identify both housing code violations and lead-based paint hazards. Fortunately, one and a half FTE code inspectors are

already trained in lead inspections/risk assessments, so there may be no additional training required. City staff also reported their plans to start receiving training through the Michigan Association of Housing Officials, including lead training. In addition to cross-training of code inspectors, other training needs may include the following:

- Lead hazard awareness for supervisors.
- Lead hazard awareness for city attorneys charged with enforcing lead-related code violations.
- Lead hazard awareness for administrative law judges.
- Training for health department case workers who coordinate care for children with elevated blood lead levels on housing code violation procedures: specifically, how they can request a housing code inspector in homes of children with elevated blood lead levels.
- Healthy homes best practices and standards for code inspectors, so that they will be better equipped when encountering other hazards.
- “Soft skills,” such as customer service, communications, and ethics training for code officers, who may interact often with tenants and landlords from various cultural backgrounds.

As the program develops and Bay City strengthens its codes, ongoing and comprehensive training will be required to ensure staff capacity to enforce the new provisions.

### **Implementation Considerations – Involving the Public**

Integrating lead hazard identification into the housing codes in Bay City should also consider how best to achieve community consensus. This will require careful articulation of why this is needed and related costs and benefits. Community leaders should be engaged to help articulate why housing codes present an important opportunity to address childhood lead poisoning in Bay City and what the priorities should be. Those opportunities include:

- Ending the historic divide between housing and public health.
- Acting before children are harmed, instead of reacting only after the harm has been done.
- Potential for new job creation.
- The benefits of a “health in all policies” approach.
- How the costs of proactive code inspections are less than the costs of treating and educating children with elevated blood lead levels.
- How proactive codes can benefit landlords by reducing the prospect of unanticipated housing repairs and avoidable litigation.



- Building public trust in democratic institutions to address preventable diseases, such as childhood lead poisoning.
- Active engagement of the city’s philanthropic institutions.
- Ending the current inefficient practice of shifting the costs of lead poisoning to our schools and medical care institutions.

To maximize the public’s involvement, the city should consider appointing community leaders and members to an advisory council to provide organized input. During the decision-making process, the city should make sure to consider equity impacts of code changes. Some recommendations to keep in mind include:

- Include community members in the development of the structure of the policy process to ensure that they are represented throughout the process.
- Implement holistic strategies that break down silos.
- Develop awareness campaigns so that the necessity of the policy changes are conveyed to the community.
- Prioritize resources in areas that need them most.
- Protect tenants as the code changes are implemented.

More details for these recommendations and others about addressing equity in lead poisoning prevention policy change can be found in *Achieving Equity in Lead Poisoning Prevention Policy Making: Proceedings from a Consensus Conference*, a report published by Human Impact Partners (available at [https://humanimpact.org/wp-content/uploads/2018/11/Achieving-Equity-in-Lead-Poisoning-Prevention-Policy-Making\\_Proceedings-from-a-Consensus-Conference.pdf](https://humanimpact.org/wp-content/uploads/2018/11/Achieving-Equity-in-Lead-Poisoning-Prevention-Policy-Making_Proceedings-from-a-Consensus-Conference.pdf)).

City staff reported an active and positive relationship with a group of landlords, established within the last three or four years. The city should continue to work with this group as they implement code changes to prevent lead exposure.

## Conclusions

A recent authoritative report, *10 Policies to Prevent and Respond to Childhood Lead Exposure* (see <https://nchh.org/information-and-evidence/healthy-housing-policy/10-policies/>), showed how every dollar invested in residential lead hazard control (which can include better codes) will yield at least \$1.36 in monetary benefits. Community involvement in such changes is essential. Although housing codes are often considered to be mundane, they can also be an important vehicle to rebuilding trust in government and in the city’s ability to solve its challenges. In short, implementation must include an important public education and involvement component if such changes are to be lasting and productive.

Modernization of the Bay City housing code holds great promise in helping the city prevent childhood lead poisoning. The city already has a proactive rental housing inspection process, a robust enforcement infrastructure, and a relationship with their landlords that can be leveraged to include detection of lead hazards before children have been exposed. Changes in housing code language, staffing levels, enforcement, and creative use of subsidies can all be used to help eliminate childhood lead poisoning as a major public health problem.

## **Acknowledgments**

We thank Debbie Kiesel, Community Development Director, and Sue Coggin, Code Enforcement Coordinator, for meeting with NCHH representatives.

The opinions expressed here are those of the National Center for Healthy Housing and do not necessarily reflect those of the Bay City government.

## **Appendices**

Appendix A: Elements of Effective Housing Code Enforcement Programs

Appendix B: Code Comparison Tool Results

Appendix C: TACTIC Site Visit Meeting Notes

## Appendix A: Elements of Effective Housing Code Enforcement Programs

Adapted from *Up to Code: Code Enforcement Strategies for Healthy Housing*.

### Adopt a Strong Housing Code

Housing codes often contain ambiguous phrases in their standards, such as “clean,” “sanitary,” “safe,” and “healthy,” and the lack of detail makes efficient and effective code enforcement difficult. Without specific standards to serve as a guide, property owners, residents, and code enforcement officers can interpret housing codes differently, leaving compliance decisions subject to challenges and residents vulnerable. In addition, many housing codes don’t properly address health-related threats in the home, such as pests, moisture, ventilation, and chemicals (radon, lead, and pesticides, for example).

*Resource/tip: The National Healthy Housing Standard provides model codes that incorporate public health rationale into building code parlance.*

### Fund the Code Enforcement Program Sufficiently

Effective code enforcement programs require sufficient financial resources. In many localities, state law sets forth how the locality may fund its code enforcement operations (typically through general fund, Community Development Block Grant (CDBG) funding, permits/regulatory fees, or fines). State laws may also set forth the types of fees and amount of fines the jurisdiction may assess on those who violate the housing code.

*Resource/tip: Some communities fund their code enforcement programs with moneys from the CDBG program, administered by the U.S. Department of Housing and Urban Development. These grants can fund code enforcement officers’ salaries and related expenses, legal proceedings to enforce housing codes, and rehabilitation or improvement of some types of housing.*

### Train Officers Comprehensively

Code enforcement programs require well-trained officers to enforce the local housing code. Officers need to participate in a broad-based training program, periodic training updates, and routine inspections with other officers to ensure professionalism and consistency in the field. Training should cover all applicable federal, state, and local laws but also best practices, soft skills (e.g., how to work effectively with residents from diverse backgrounds), and availability of community resources to assist residents.

*Resource/Tip: The National Healthy Homes Training Center offers training for code inspectors.*

## **Partner with Community Organizations**

Community organizations can raise awareness of the purpose, policies, and procedures of code enforcement, and provide supplementary resources and services.

*Resource/tip: Code enforcement programs have a variety of potential community partners, including housing advocates, public health professionals, immigrant and refugee service providers, social workers, tenant organizations, and home repair programs.*

## **Promote Cross-Agency Coordination**

Ensuring housing is safe and habitable requires cross-agency coordination. Because responsibility for health and safety is usually divided among various city agencies or departments, intragovernmental communication and collaboration can help make code enforcement more efficient and effective, and less like a series of disjointed, isolated efforts.

*Resource/tip: Staff of the Erie County (NY) Department of Health's Healthy Neighborhoods Program and Lead Poisoning Prevention Program are trained and deputized code enforcement officers, which enables health department staff to formally cite for violations of the Erie County Sanitary Code while conducting home assessments. Deputizing health and/or housing agencies to enforce each other's code provisions assures a unified perspective toward housing-based lead poisoning primary prevention.*

## **Develop a Cooperative Compliance Model**

Under a cooperative compliance model, rather than simply inspecting housing and citing for violations, the code enforcement officer works cooperatively with property owners to help them understand the elements of healthy housing, the importance of code compliance, and how to bring the property into compliance. The code enforcement officer is armed with cooperative tools – information, education, and resources – along with traditional enforcement sanctions. Cooperative compliance allows property owners and officers to work together to improve housing conditions and promote health.

*Resource/tip: Many communities struggle with enforcement. A cooperative compliance approach can reduce the number of properties that require follow-up enforcement action.*

## **Enforce the Local Housing Code**

Most owners do their best to comply with housing codes, but code enforcement programs must be prepared to deal with those who don't. To protect the health and safety of residents effectively, programs need to be flexible and efficient, and have teeth. There are three major types of enforcement: administrative, civil, and criminal.

*Resource/tip: [ChangeLab Solutions’ Healthy Housing Laws that Work: Creating Effective Implementation and Enforcement Clauses](#) explains the different ways local governments can enforce housing and property maintenance codes.*

## **Adopt a Proactive Rental Inspection (PRI) Program**

Traditional code enforcement programs are complaint-based; that is, in response to a resident’s complaint about a substandard housing condition, a code enforcement officer conducts a housing inspection. Under a PRI program, rather than wait for a complaint to trigger a housing inspection, the locality inspects all covered rental housing on a periodic basis. Though the specifics vary by locality, PRI programs typically share the same basic structure: registration, periodic inspections, and enforcement. A PRI system doesn’t replace a complaint-based system and can help both property owners (by incentivizing routine maintenance that prevents costly repairs) and tenants (e.g., by ensuring equitable access to services for vulnerable populations that may be unaware of or fearful of exercising their rights under a traditional complaint-based system).

*Resource/tip: [ChangeLab Solutions’ A Guide to Proactive Rental Inspection Programs and Model Proactive Rental Inspection Ordinance](#) explains how proactive rental inspections can help protect vulnerable residents, preserve safe and healthy rental housing, and work to increase neighborhood property values.*

## **Establish Supplementary Programs**

Jurisdictions can establish auxiliary programs that increase code enforcement effectiveness by educating community members, incentivizing and/or financing repairs, and helping residents move when necessary.

*Resource/tip: [Up to Code: Code Enforcement Strategies for Healthy Housing](#) contains several examples of supplementary programs that other communities have established to support their code enforcement activities.*

## **Evaluate the Code Enforcement Program**

Code enforcement programs should collect and analyze data regularly to better understand their strengths and weaknesses. Evaluation can help monitor functioning, identify areas for improvement, help to justify resources, and provide accountability. Communities may also consider tracking key performance metrics by census tract or neighborhood to ensure equitable access and that the system is working well for all residents.

*Resource/tip: Data collection and analysis can provide valuable information to both government agencies and the community. Whenever possible, communities should work to establish data*

*sharing with other agencies or programs and, as appropriate or feasible, make data publicly available.*

## **Citation**

*ChangeLab Solutions (eds.). (2015, May). Up to code: Code enforcement strategies for healthy housing. Oakland, CA: ChangeLab Solutions. Retrieved May 23, 2019, from [https://changelabsolutions.org/sites/default/files/Up-tp-Code\\_Enforcement\\_Guide\\_FINAL-20150527.pdf](https://changelabsolutions.org/sites/default/files/Up-tp-Code_Enforcement_Guide_FINAL-20150527.pdf)*

## Appendix B: Code Comparison Tool Results

### I. Background

Location	Property Maintenance Code	Other Code Sections	Other Documents
Battle Creek*  Uses IPMC 2015	Part 14, Title 4, Chapter 1450: Property Maintenance Code  International Property Maintenance Code 2015	842 Rental Housing 1456 Vacant or Abandoned Structures	Rental Permit Application Rental Property Checklist Vacant or Abandoned Registration Form
Bay City  Uses IMPC 2012	Chapter 26 Buildings and Building Regulations Article VII. Property Maintenance Code  International Property Maintenance Code 2012		Rental Housing Checklist  Rental Housing Fees
Detroit*  Based on the 2000 IPMC	Chapter 9, Article 1: Property Maintenance Code	Chapter 9, Article 1, Division 3: Rental Property Chapter 26 - Housing Chapter 24, Article X: Lead Poisoning Prevention Testing and Prevention	
Flint*  Uses IPMC 2015	Chapter 5, Article 3: Property Maintenance Code  International Property Maintenance Code 2015	Chapter 5, Article 3, Sec. 5.3-3 on: Certificate of Compliance for rental properties	
Grand Rapids*  Uses IPMC 2012 with amendments	Title VIII, Chapter 140: Property Maintenance Code  International Property Maintenance Code 2012	Title VIII, Chapter 140, Sec. 8504: Amendments to the Code including certificate of compliance for rentals	



Location	Property Maintenance Code	Other Code Sections	Other Documents
Muskegon  Uses IPMC 2015	Chapter 10 Buildings and Building Regulations Article VI. Property Maintenance Code  International Property Maintenance Code 2015	2015 Michigan Building Code	Property Maintenance Standards Printable Brochure
Michigan*  State Lead Law	Public Health Code, Act 368 of 1978, Part 54A: The Lead Abatement Act		Lead Hazard Control Rules

\*These cities were reviewed in year one of the TACTIC project.

## II. Code Comparison Tool

This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at [http://bit.ly/NCHH\\_CCT](http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

### SECTION E: Chemical Hazards – Building Products

Questions: 10

Total Responses: 25

Answered: 25

Percentage Complete: 100%

*Status: Below Average*

#### Questions E1-E6: Lead

**Significant Opportunities for Improvement.** Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.1, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

### Questions E7-E8: Asbestos

**Significant Opportunities for Improvement.** Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.3, 7.3.1, 7.3.2, 7.3.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

### Questions E9-E10: Toxic Building Materials

**Significant Opportunities for Improvement.** Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.4.1, 7.4.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

#### **NHHS Provisions that You Reported Already Exist in Your Local Code**

*No provisions exist.*

#### **NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)**

**NHHS Provision 7.1.** All chemical and radiological agents in dwellings, premises, and accessory structures, including but not limited to deteriorated lead-based paint, friable asbestos-containing material, formaldehyde, volatile organic compounds, radon, pesticides, and methamphetamine, shall be contained, stored, removed, or mitigated in a safe and healthy manner consistent with federal, state, and local laws and regulations. When an applicable regulatory limit is more protective than the level included in this section, the more restrictive limit shall apply.

**NHHS Provision 7.2.5.** Lead-based paint shall not be applied to the interior or exterior of any dwelling or dwelling unit.

**NHHS Provision 7.2.1.** Lead levels at or above federal regulatory limits pursuant to 40 C.F.R. § 745.65 are deemed hazardous:

1. Lead-based paint on an existing painted surface – 0.5% by weight or 1.0 milligrams per square centimeter;
2. Dust on floors – 40 micrograms of lead per square foot of settled dust ( $\mu\text{g}/\text{ft}^2$ );
3. Dust on interior windowsills – 250  $\mu\text{g}/\text{ft}^2$ ;
4. Dust on window troughs (wells) – 400  $\mu\text{g}/\text{ft}^2$ ;
5. Bare soil in children's play areas – 400 parts per million (ppm) of lead; and
6. Bare soil in areas of the yard that are not children's play areas – 1,200 ppm.

**NHHS Provision 7.2.2.** Painted surfaces shall be maintained intact. With the exception of paint that is tested and found not to contain lead-based paint in accordance with 40 C.F.R. §

745.82(a), deteriorated paint at a property built before 1978 shall be repaired in accordance with the renovation requirements of 40 C.F.R. § 745, Subpart E, and the underlying cause of the deterioration shall be corrected.

**NHHS Provision 7.2.3.** All renovation, repair, and painting work that disturbs a painted surface in a pre-1978 dwelling shall be performed in accordance with the renovation requirements of 40 C.F.R. § 745, Subpart E, unless the paint has been tested and found not to contain lead-based paint in accordance with 40 C.F.R. § 745.82(a). Dust clearance testing shall be performed at the conclusion of the renovation work.

**NHHS Provision 7.2.4.** With the exception of paint that is tested and found not to contain lead-based paint in accordance with 40 C.F.R. § 745.82(a), a painted surface shall not be disturbed using methods that involve (1) open-flame burning or torching or operating a heat gun at temperatures above a maximum of 1,100° F (593° C); or (2) power sanding, grinding, power planing, needle gun, abrasive blasting, or sandblasting unless such machines have shrouds or containment systems and a high-efficiency particulate air (HEPA) vacuum attachment that collects dust and debris at the point of generation. The shroud or containment system shall release no visible dust or air outside the shroud or containment system.

**NHHS Provision 7.3.** Every owner shall maintain in good repair all asbestos-containing material on the premises. All asbestos-containing material shall be maintained non-friable and free from any defects such as holes, cracks, tears, and/or looseness that may allow the release of fibers into the environment.

**NHHS Provision 7.3.1.** Friable asbestos-containing material shall be abated by licensed asbestos professionals in accordance with federal, state, or local requirements.

**NHHS Provision 7.3.2.** Any renovation, demolition, or other activity that will disturb asbestos-containing materials shall be preceded by asbestos abatement performed by certified asbestos professionals in accordance with federal, state, or local requirements.

**NHHS Provision 7.3.3.** Abatement, removal, and disposal of all asbestos-containing material shall comply with all appropriate federal, state, and local requirements.

**NHHS Provision 7.4.1.** Building materials consisting of hardwood plywood, medium-density fiberboard, and particleboard as defined by 15 U.S.C. 2697(b)(2) shall not be used in maintenance and renovations within dwellings, unless the materials have been certified to meet the formaldehyde emission standards of 15 U.S.C. 2697(b)(2):

1. Hardwood plywood with a veneer core, 0.05 parts per million (ppm);
2. Hardwood plywood with a composite core, 0.05 ppm;
3. Medium-density fiberboard, 0.11 ppm;
4. Thin medium-density fiberboard, 0.13 ppm; and particleboard, 0.09 ppm.

**NHHS Provision 7.4.2.** Building materials used in maintenance and renovations, including but not limited to paints, coatings, primers, glues, resins, adhesives, and floor coverings, shall be certified as having no volatile organic chemicals (VOCs) or low VOC emissions, and having no halogenated flame retardants (HFRs).

#### **NHHS Stretch Provisions (Not Assessed in Online Tool)**

**NHHS Stretch Provision 7.2.** Lead present at or above the following limits is deemed hazardous:

1. Lead-based paint on a friction, impact, or chewable surface, damaged or otherwise deteriorated, or non-intact--0.06% by weight;
2. Dust on floors—10 micrograms of lead per square foot of settled dust ( $\mu\text{g}/\text{ft}^2$ );
3. Dust on interior windowsills--100  $\mu\text{g}/\text{ft}^2$ ; and (4) 40  $\mu\text{g}/\text{ft}^2$  on porches.

#### **Why Chemical Hazards – Building Products Matter**

Lead is a heavy metal that accumulates in the body when ingested and has toxic effects on the nervous system, cognitive development, and blood-forming and other systems. Sources of lead include lead-based paint and the dust it generates, soil, drinking water, and consumer and other products. Lead-contaminated soil may be found particularly around older buildings contaminated by flaking external paintwork, adjacent to industrial premises using (or previously having used) lead, and near busy roads from the exhaust fumes from leaded gasoline. Lead is readily absorbed from the intestinal tract, especially in children, and its absorption is enhanced by dietary deficiency of iron and calcium.

Exposure to asbestos increases the risk of developing lung disease. Asbestos products were historically used extensively in building materials. Vermiculite insulation in homes may be contaminated with asbestos. Vermiculite insulation should be assumed to be contaminated with asbestos and should not be disturbed. Trained professionals must be hired to remove vermiculite insulation. Formaldehyde is a prominent VOC found in household and construction products. It is a colorless, strong-smelling gas that can cause watery eyes, nausea, coughing, chest tightness, wheezing, skin rashes, and allergic reactions, and a burning sensation in the eyes, nose, and throat.

Formaldehyde is classified by the World Health Organization as a known human carcinogen. The most significant source of formaldehyde in the homes has been pressed-wood products made using adhesives that contain urea formaldehyde (UF) resins.

## **Suggested Next Steps**

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
  - Healthy Housing Codes:  
<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>
  - Proactive Rental Inspections:  
<https://nchh.org/resources/policy/proactive-rental-inspections/>
  - Incentivizing Healthy Housing:  
<https://nchh.org/resources/policy/incentivizing-healthy-housing/>
  - APHA: Healthy Homes:  
<https://www.apha.org/healthy-homes>
- Ask for technical assistance or help getting connected to a peer mentor. Contact Jonathan Wilson ([jwilson@nchh.org](mailto:jwilson@nchh.org)).

## Appendix C: TACTIC Site Visit Notes

### Meeting One: March 4, 2020 – City of Bay City Offices

Attendees:

Debbie Kiesel, Community Development Director, City of Bay City  
Sue Coggin, Code Enforcement Coordinator, City of Bay City  
David Jacobs, Chief Scientist, National Center for Healthy Housing  
Sarah Goodwin, Policy Analyst, National Center for Healthy Housing.

#### Program Structure/Capabilities

Bay City employs two full-time and one part-time code inspector on their staff. Inspectors receive on-the-job training; the full-time and the part-time inspector are lead certified. They expect to get future training through the Michigan Association of Housing Officials (MAHO).

Bay City requires rental units to register and undergo an inspection every three years. The inspections include a visual inspection for peeling and chipping paint, which was a new requirement in the last five years.

Inspections for a single-family home take about 30 to 45 minutes. There are about 5,000 total units in Bay City, 2,800 of which are registered. About 70-75% of units need follow-up inspections, and it takes an average property three inspections to get into compliance. Common violations include broken stairs, missing smoke detectors, missing handrails, and deteriorated paint. They estimate that up to 80% of the units have issues with paint.

Bay City has a civil infraction process. After two inspections and no response from the landlord, they will issue a notice of violation and a \$100 fine, giving them 10 days to reply with a timetable for getting the work done. If they get no response, they issue a civil infraction notice and schedule a hearing in court. They typically serve about 100 notices of violation and take 10 landlords to court a year.

Within the last 4-5 years, they've built a new rapport with a group of local landlords, which has been good for discussing potential changes.

#### Potential Opportunities and Challenges

- The code program is currently funded only by its revenue; using CDBG could be a possibility.
- They expect to amend their codes soon due to anticipated changes at the state level.
- They can check with the health department to share data.

- Potential challenges include staff time and cost of tests.

# **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project)**

## **Final Report for the City of Muskegon, Michigan**

by

**David E. Jacobs, PhD, CIH  
Anna Plankey**

for the  
**Michigan Department of Health and Human Services,  
Child Lead Exposure Elimination Innovations Grant**

**Contract Number E20193423-00**

**May 31, 2020**

**National Center for  
HEALTHY HOUSING**



## **Final Report for the City of Muskegon, Michigan: Table of Contents**

<b>Summary</b>	<b>42</b>
<b>Summary of Recommendations</b>	<b>42</b>
<b>Introduction</b>	<b>43</b>
<b>How Housing Codes Can Help Prevent Childhood Lead Poisoning</b>	<b>43</b>
<b>Key Characteristics of Muskegon</b>	<b>44</b>
<b>National Best Practices</b>	<b>44</b>
<b>Methods</b>	<b>47</b>
<b>Results and Recommendations</b>	<b>48</b>
<b>Code Language</b>	<b>48</b>
<b>Staffing and Enforcement</b>	<b>50</b>
<b>Training</b>	<b>51</b>
<b>Implementation Considerations – Involving the Public</b>	<b>52</b>
<b>Conclusions</b>	<b>53</b>
<b>Acknowledgments</b>	<b>53</b>
<b>Appendices</b>	<b>54</b>
<b>Appendix A: Elements of Effective Housing Code Enforcement Programs</b>	<b>55</b>
<b>Appendix B: Code Comparison Tool Results</b>	<b>59</b>
<b>Appendix C: TACTIC Site Visit Notes</b>	<b>65</b>

## Summary

The City of Muskegon requires a certificate of compliance for its rental properties, each of which must be registered and undergo a visual inspection on a regular schedule. Certificates of compliance are valid for six years if no violation is found. If a violation is found, then the certificates of compliance are valid for three years. These provisions are important strengths that can be leveraged to help prevent lead exposure in children.

The City of Muskegon has a City Building and Building Regulations ordinance and additionally adopted the 2015 International Property Maintenance Code (IPMC) for its rental housing stock code. The IPMC provides for all paint to be kept in an intact condition but does not require any actual testing of paint, dust, or soil to determine lead content. Such measurements are typically made only after the health department has determined that a child already has an elevated blood lead level. Other best practices for rental housing codes across the country provide for proactive paint, dust, or soil testing, instead of only requiring such testing after a child has been exposed.

This report describes the current Muskegon code process and provides recommendations on improvements to its housing code and associated inspection, enforcement procedures, staffing, public education, and other related matters. The report has been reviewed by City of Muskegon personnel for accuracy. We also reviewed another recent housing report prepared by the City of Muskegon.

This project was funded by the Michigan Department of Health and Human Services, Child Lead Exposure Elimination Innovations Grant, contract number E20193423-00. The opinions expressed here are those of the National Center for Healthy Housing and do not necessarily reflect those of the City of Muskegon.

## Summary of Recommendations

Require testing of deteriorated lead paint and dust as part of the rental permit to determine actual risk of lead hazards. The current practice of visually examining paint is insufficient, because the lead content of deteriorated paint and dust cannot be detected by the naked eye.

Change the existing housing code language to require remediation of deteriorated lead-based paint using lead-safe work practices and clearance dust testing in all rental units in which young children reside, are expected to reside, or could reside or visit. The National Healthy Housing Standard (available at <https://nchh.org/tools-and-data/housing-code-tools/national-healthy-housing-standard/>) may be utilized as a model code. The dust testing should comply with the recent lead dust guidance values established by the U.S. Department of Housing and Urban Development for its lead hazard control grantees.

Train housing code compliance officers to collect paint and dust samples properly as part of

code inspections instead of only doing so after a child has already been exposed. Other local officials employed as lead-based paint risk assessors could be deputized as code officers and vice versa, as is the case in Erie County (NY) and Rochester (NY).

Amend the language of the code violation notices to include deteriorated lead-based paint and hazardous dust lead levels. The current language seems to involve only deteriorated paint, not deteriorated *lead-based* paint.

Involve the public in proposed changes to the code and seek comment from tenants, landlords, property owners, public health officials, and other members of the public. This includes providing for the protection of tenants during the implementation of code changes.

Facilitate data sharing between the city and the county health department. The city could provide a list of homes with a higher risk of hazards, using variables such as deteriorated paint and lack of compliance.

Public education efforts should include the importance of deteriorated lead-based paint and the associated contaminated dust and soil it generates. Previous public education efforts have resulted in an increase in voluntary child lead testing; future efforts could include more information about the importance of home testing, for example.

Muskegon should evaluate the results of code changes by documenting changes in housing quality, compliance time, complaints, and childhood blood lead levels. Other factors to consider in evaluation include census tract or neighborhood comparisons to ensure the system is monitoring effectively and equitably.

Work with community-based programs to expand capacity to educate landlords and residents, assistance with temporary relocation if needed during repairs and expand referrals to social services for other needs identified in the home.

Consider increasing funding and capacity for code compliance. The city's code program is currently only funded by its revenue; other options include using Community Development Block Grant (CDBG) funding or local funding. The city could also consider applying for a HUD Lead Hazard Control Grant to assist property owners with the cost of controlling lead hazards.

## **Introduction**

### **How Housing Codes Can Help Prevent Childhood Lead Poisoning**

Housing quality is an important social determinant of health in general and in childhood lead poisoning prevention specifically. Yet the housing and health sectors are typically governed by separate fragmented and isolated systems. Although today's housing codes originated over a

century ago in the sanitation movement to combat health problems such as cholera, tuberculosis, and typhoid, current codes (with important exceptions described below) typically refer housing-related lead paint problems to local health departments instead of using the code process to identify and correct these hazards. Health departments often focus on identifying lead hazards only after an elevated blood lead level has occurred.

This secondary prevention reactive approach hampers the application of the existing housing inspectorate and code systems to detect and correct lead hazards in housing *before* children have been exposed. Furthermore, housing codes in many jurisdictions are driven largely by complaint-driven reactive enforcement systems. In many cases, local housing codes are either silent on correction of lead hazards or defer to specialized lead risk assessments by local health departments. An effective code enforcement system can be a powerful tool for improving and protecting residents from lead exposure. Appendix A describes key elements of an effective system.

## **Key Characteristics of Muskegon**

Muskegon has a population of about 37,287 (2018 estimates), 2,516 of whom are children 0-5 years old. Muskegon has 13,794 occupied housing units, 50% of which are rentals. Based on Muskegon's population data, an estimated 1,258 children under the age of six live in rental units. An estimated 84.9% of the rental housing units in Muskegon were built before 1979 (lead paint was banned for use in residential units in 1978 by the federal government). Lead paint is likely to be a hazard in a high number of Muskegon rental homes.

Muskegon inspects most rental units. The city reported that it believes about 70% of units comply with the registration requirement. Since the city began enforcing their rental program, the severity of violations has lessened. Most orders to repair reportedly reach compliance within 30 days.

The City of Muskegon reports that there has been an increased emphasis on gaining compliance.

## **National Best Practices**

Several municipalities across the country have taken action to address lead hazards in housing through codes, which are reviewed briefly here.

For example, in December 2005, Rochester (NY) passed an ordinance adding inspections of most pre-1978 rental housing for lead paint hazards to their ongoing rental housing inspections needed to obtain a certificate of occupancy (C of O). Rental housing inspections occur every three or six years, depending on building size (see paint). The city maintains a publicly accessible database showing the date all rental properties passed their most recent C of O inspection, including lead.

The code does not appear to have significantly impacted the housing market in Rochester, a key concern of code officials and property owners prior to passing the law. Landlords have now accepted it as a routine cost of business (see <https://www.cityofrochester.gov/article.aspx?id=8589935004>). To receive a C of O, property owners must correct identified lead hazard violations (if any). If hazards are identified, the property owner must pass a private clearance test (a visual inspection plus at least eight dust wipe samples). The protocol (available at <https://www.cityofrochester.gov/lead/> and <https://ecode360.com/8677786>), states in part: “Dust samples shall be taken from each of no more than four rooms. The selection of rooms to be tested, where applicable, shall include no less than one bedroom and the living room. At least one wipe sample shall be taken from a window trough or a windowsill with a paint history, if present, and one from a floor in each room. Where there are less than four rooms, then all rooms shall be sampled.” Results are compared to current EPA dust lead hazard standards). For the initial inspection, code officials examine paint condition; and if it is intact and the home is in a high-risk area, then they will collect eight dust wipe samples to ensure that the home is safe for children. If paint is not intact, lead-safe work practices must be used to repair the paint, followed by private dust testing to ensure cleanup is adequate (unless the home has been found to be free of lead-based paint). The city maintains a publicly accessible database showing the date all rental properties passed their most recent C of O inspection, including lead.

The code does not appear to have significantly impacted the housing market in Rochester, a key concern of code officials and property owners prior to passing the law. Landlords have now accepted it as a routine cost of business (<https://www.ncbi.nlm.nih.gov/pubmed/22001644>). As of August 28, 2018, nearly 15 years since the ordinance’s approval, the City of Rochester has inspected 166,906 individual dwelling units (see <https://www.cityofrochester.gov/lead/>). Data show that blood lead levels in Rochester improved more than twice as fast compared to the rest of the state. Eighty-six percent of code inspections did not have an exterior lead violation, and 88% of those with a violation had complied with remediation as of August 2018. For interiors, of the 166,906 units inspected, 95% passed the initial visual inspection; and among those with an interior violation, 84% had complied as of June 30, 2018. Of the 4,141 units cited with a lead dust hazard, 98% have complied as of June 30, 2018. Ninety percent of the units subjected to dust wipe testing (over 30,000 units as of 2016) passed. During the first 12 years, the City of Rochester has issued 782 vacate orders for situations with severe hazards that put children at risk and 3,418 tickets for noncompliance. The frequency of violations has declined in recent years, as landlords know what to expect. Furthermore, the ordinance has created a demand for more private inspectors to perform clearance testing; the increased competition has resulted in a price reduction. Before the law was passed, a clearance test cost about \$350 per unit; the cost is now about \$125 per unit.

In Maryland, owners of older residential rental properties must register their properties annually with the Department of the Environment. Private inspectors issue a lead paint risk

reduction certificate for each dwelling that passes the inspection, which includes both a visual examination of paint condition and dust lead testing. Rental properties covered by the law must be free of chipping, peeling paint and lead-contaminated dust. To qualify for registration, owners must hire a certified contractor to address any defective paint and have an accredited lead paint inspector verify compliance before any change in occupancy. Inspectors issue a lead paint risk reduction certificate for each dwelling unit that passes the inspection. Whenever a tenant notifies an owner that there is defective paint or a child with an elevated blood lead level, the owner has 30 days to conduct modified risk reduction measures and pass lead inspection certification. The rental property owner is responsible for temporarily relocating the family to a lead-safe or lead-free dwelling while the original dwelling undergoes risk reduction measures. A key component in Maryland's substantial decline in childhood lead poisoning has been its strong public enforcement of the Maryland Reduction of Lead Risk in Housing Act, coupled with local enforcement coordination and private enforcement actions by nonprofit agencies and *pro se* tenants. The Maryland Department of the Environment files 500 to 800 violation notices annually, and a team from the state's attorney general's office is responsible for enforcing actions against noncompliant owners. Another highly effective best practice has been Maryland's policy of pursuing enforcement against a rental property owner's entire noncompliant housing portfolio once enforcement actions have been initiated against any one of the owner's properties. Local housing code enforcement and landlord licensing officials at the city and county level also help coordinate enforcement by referring noncompliant properties in their jurisdictions to MDE for enforcement of the registration and risk reduction requirements.

Rhode Island passed the Lead Hazard Mitigation Act in 2002 and implemented code regulations in 2004. Before any change in ownership or tenancy of a property and at least every two years, the property owner must have the property inspected and demonstrate via a certificate of conformance (COC) or a lead-safe or lead-free certificate that the dwelling is safe for children. Establishing lead safety includes dust testing. Under the law, rental property owners are required to attend a training on unsafe lead conditions, inspect/repair any lead hazards at their properties, make residents aware of their findings and actions, address residents' lead-hazard concerns, follow lead-safe work practices during maintenance, and verify each unit's compliance through a lead inspector. Typically, the owner must have the property inspected every two years and prove its safety for children by showing a COC or a lead-safe or lead-free certificate. Since the law's enactment, the state has been challenged by compliance. In 2014, when the Providence Plan completed an evaluation of the Lead Hazard Mitigation Law, it found that only 20% of the covered properties had complied with the regulations within the first five years of implementation. Several cities have taken steps to improve enforcement. Providence, for example, created a separate division of Housing Court to address lead violations. The Inspection and Standards division reported that 484 of 537 lead violation cases filed over the first four years resulted in corrective action. An analysis conducted by the Rhode Island Department of Health discovered that there was a significant decline in children with elevated

blood lead levels in Providence between 2012 and 2013. Notably, the decline coincided with the implementation of the building permitting requirements and the lead docket.

The National Healthy Housing Standard, a model code, provides that lead levels at or above federal regulatory limits are defined as hazards and must be remediated. Those levels include deteriorated lead paint (0.5% by weight or 1.0 milligram per square centimeter); dust (40 micrograms of lead dust per square foot [ $\mu\text{g}/\text{ft}^2$ ] on floors and  $100 \mu\text{g}/\text{ft}^2$  on windowsills). The National Healthy Housing Standard also states that painted surfaces shall be maintained intact and, except for paint tested and found not to contain lead, deteriorated paint at a property built before 1978 shall be repaired using lead-safe work practices and follow-up dust testing.

Many federally assisted housing programs, including public housing, Section 8 project-based assistance, and federally assisted housing rehabilitation programs also require paint and dust testing, regardless of whether a child with an elevated blood lead level resides there, pursuant to the Lead-Safe Housing Rule (24 CFR Part 35).

Additional case studies of best practices across the nation for childhood lead poisoning prevention are available at <https://nchh.org/who-we-are/nchh-publications/case-studies/lpp-stories-case-studies>.

## Methods

We conducted a conference call with Sharonda Carson on February 27, 2020, to describe the process and identify current codes in February 2020. After reviewing the local code, we used the NCHH Code Comparison Tool ([https://bit.ly/NCHH\\_CCT](https://bit.ly/NCHH_CCT)) to compare Muskegon's housing code with best practices (see Appendix B).

In March 2020, we conducted an on-site visit, which was attended by Sharonda Carson, LeighAnn Mikesell, Kirk Briggs, and Jay Paulson from the City of Muskegon. Representing the National Center for Healthy Housing was David Jacobs. At the meeting, the city offered to provide an additional report, *The Multi-Family Housing Study*, prepared by the City of Muskegon, Michigan, Department of Economic Development, 2019, which NCHH received on May 7, 2020. That report highlighted a growing economy in the city and a shortage of low-income housing.

NCHH sent a draft report to the City of Muskegon on March 27, 2020, which was reviewed by city staff. The views in this report do not necessarily represent the City of Muskegon.

## Results and Recommendations

### Code Language

Muskegon has a rental property registration process and a planned proactive scheduled inspection process, both of which are enormous strengths. This is superior to a solely complaint-driven reactive code inspection system, although many jurisdictions have moved to proactive systems in recent years. (Of course, the complaint-driven process needs to continue in order to respond to violations that may occur outside of the periodic scheduled inspection process.) The reactive system often relies on injuries, illnesses, or a resident's complaint and often occurs only after conditions have become quite serious. The reactive system also tends to produce more litigation and creates uncertainty in the rental market, because landlords may have to absorb unanticipated property repair and litigation expenses. It can also be problematic for residents who either don't know their rights or are fearful of exercising them (e.g., undocumented residents, tenants fearing eviction), leading to inequities. The presence of a proactive scheduled inspection process is a strength upon which the Muskegon community can build.

When code inspections are conducted, landlords are given 60 days to bring the property into compliance. During this time, they also have an opportunity to appeal the decision or interpretation made by the city to the housing board of appeals. If the property is not brought into compliance and no appeal is received, the property owner's certificate of compliance will be suspended by the director of inspections. The rental property must be vacated within 60 days of issuance of the suspension and must remain unoccupied until the certificate of compliance is reinstated or a new certificate of compliance is issued. Reinstatement and inspection fees are determined by the city commission and must be paid prior to the reinstatement of the certificate.

One area for improvement is the language of the code itself, which only restricts violations to visibly deteriorated paint, regardless of whether it actually contains lead. Of course, deteriorated nonlead paint should be corrected to help prevent rot and other matters; but the current code language in Muskegon is drawn from the International Property Maintenance Code, which has been criticized by the National Center for Healthy Housing and others for its failure to identify actual lead hazards (see <https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/icc/>). It also diverts attention from where it is most needed, because most paint, even in older housing stock, does not actually contain lead.

One option would be to require actual testing of deteriorated paint to determine if it has levels of lead above the federal standards, which the State of Michigan has adopted. This can be achieved by simply adopting the National Healthy Housing Standard, which would also have the added benefit of addressing other housing conditions that could adversely affect health. There are two methods of measuring lead in paint:



1. Careful collection of all layers of paint from deteriorated surfaces, followed by laboratory analysis accredited under the EPA National Lead Laboratory Accreditation program; or
2. On-site analysis using portable x-ray fluorescence (XRF) lead paint analyzers.

Either method is acceptable. Paint chip collection has lower up-front costs but can be tedious and removes paint from a surface that must be sealed following collection. XRFs have a higher up-front cost but yield immediate results and do not involve destructive paint chip sampling. This may be a better option for Muskegon, as the city already has one inspector who is certified as a lead-based paint inspector and uses an XRF device (though that individual is already fully engaged on priority work).

If deteriorated paint is found to contain lead, then remediation can occur using lead-safe work practices (essentially wet scraping to reduce dust emissions, followed by application of a durable two-coat compatible paint film, followed by specialized cleaning and dust testing). Dust testing is a relatively simple procedure carried out across a measured surface area on floors and windowsills, but the testing must be performed by trained and certified personnel and also requires laboratory analysis.

Another option is to incorporate code language that follows the Rochester model, which requires all paint to be intact, but also provides for dust lead testing even when paint is intact. Dust lead is known to be the main route of exposure for most children via normal hand-to-mouth contact, contamination of hands, toys and other objects, ingestion of lead dust, and subsequent absorption into the child's body. The Rochester model helps to address situations in which landlords have repainted but may not have followed lead-safe work practices or cleanup procedures. Disturbance of only a small amount of lead paint can cause major dust lead contamination. For example, consider the case of paint removal using dry scraping or sanding that turns the lead paint into lead dust. Removing only one square foot of lead paint containing the minimum amount of lead regulated by the federal government ( $1 \text{ mg/cm}^2$ ) and then distributing that lead dust over an average 10-foot-by-10-foot room results in a dust lead level of  $9,300 \text{ } \mu\text{g/ft}^2$ , which is well over the EPA limit of  $40 \text{ } \mu\text{g/ft}^2$  for floors. By conducting dust lead testing, inadequate dust containment and cleanup practices can be detected before a child has been needlessly exposed. Lead-safe work practices (in brief) involve occupant and worker protection, containment, use of wet methods during paint removal to minimize dust emission, use of durable new paint (or other coatings, enclosures, or building component replacements), followed by specialized cleanup methods and clearance dust testing to ensure cleaning has been adequate. Proactive dust testing and lead-safe work practices are also required in Maryland, the District of Columbia, and most federally assisted housing programs.

A final option would be to require lead risk assessments followed by remediation in all older family rental properties. Risk assessments measure lead content in deteriorated paint, dust, and bare soil. Detroit is currently pursuing this approach on a ZIP-code-by-ZIP-code basis, and it

is the standard of care in most federally assisted housing programs and in HUD's Lead Hazard Control Grant program.

Any of these methods would require changes to the city code and could be implemented as the regular schedule of rental inspections continues. This process would allow for the City of Muskegon to notify the community and property owners of the incoming requirements, giving time for owners to address hazards before being met with an inspection and potential citation.

## **Staffing and Enforcement**

Improving the language in the code will ultimately be ineffective if it is not actually obeyed and enforced. Muskegon has a code staff in place, with two code officers employed. Muskegon reported that they plan to attend future lead training courses offered by the Michigan Association of Housing Officials.

U.S. Census data (2018) for Muskegon indicates that there are 2,275 children under six years of age, similar to the figure the city reported to NCHH (2,516). Blood lead levels typically peak between the ages of one and six. If there are 13,794 occupied housing units and 50% are rental units, then there could be about 1,258 young children residing in rental units in Muskegon. Although this figure assumes there is one young child per unit, it does not include other units that children may frequent, such as residential day cares, schools, et cetera, suggesting this is a reasonable assumption.

The estimated time it would take a trained code inspector to perform a visual examination of paint (and other housing conditions), collect paint chips from deteriorated surfaces, and collect dust wipe samples from floors and windowsills in an average of four rooms per unit is approximately one hour (not including travel, administrative, and report preparation time). The current code inspection process, which is limited to visually examining housing conditions, takes about 15 minutes per unit.

Staffing needs can be estimated as follows, assuming a four-year inspection cycle under two scenarios (the first presented below assumes that the lead component of the inspection would be a standalone activity, and the second assumes that the lead component would be integrated into the code inspection process):

### *First Scenario*

*1,258 rental units with young children/4-year inspection cycle = 314 rental units/year*

*314 rental units/year x 1 hour/rental unit = 314 person-hours/year*

If we assume that there is a total of 2,080 total hours per inspector per year available, it is reasonable to assume that about 15% of that time will need to be devoted to performing lead-related inspections or risk assessments. This does not include travel to housing units to be

inspected, report preparation, training, follow-up interaction with owners, and in some cases interaction and testimony before administrative judges or others in cases of noncompliance.

In short, this would appear to mean that no more than one additional staff would need to be hired.

### Second Scenario

Alternatively, if regular code inspections take 15 minutes per unit and collection of dust wipes and paint chip samples takes another hour per unit, then the number of code officers should increase by a factor of three. This suggests the city should hire at least one or two additional code officers to absorb the burden of additional paint chip and dust wipe sample collection. This scenario assumes that all rental housing units would undergo the lead sampling process.

Another consideration is how many of the new citations will fall into noncompliance and require court time. Currently the majority of orders to repair are completed within 30 days, but city officials do have to spend time enforcing noncompliance in court.

## **Training**

Housing code officers in Muskegon currently undergo on-the-job training to fulfill their current duties; however, if they are also charged with collecting dust wipe and deteriorated paint chip samples, they will need to be certified to do so under Michigan law. This is typically achieved with a two-day training course. It is a different lead training course than the one currently offered by MAHO. Code inspectors in Rochester, NY, and elsewhere are cross-trained to enable them to identify both housing code violations and lead- based paint hazards. In addition to cross-training of code inspectors, other training needs may include the following:

- Lead hazard awareness for supervisors.
- Lead hazard awareness for city attorneys charged with enforcing lead-related code violations.
- Lead hazard awareness for administrative law judges.
- Training for health department case workers who coordinate care for children with elevated blood lead levels on housing code violation procedures: specifically, how they can request a housing code inspector in homes of children with elevated blood lead levels.
- Healthy homes best practices and standards for code officers, so that they will be better equipped when encountering other hazards.
- “Soft skills,” such as customer service, communications, and ethics training for code officers who may interact often with tenants and landlords from various cultural backgrounds.

As the program develops and if Muskegon strengthens its codes, ongoing and comprehensive training will be required to ensure staff capacity to enforce the new provisions.

## **Implementation Considerations – Involving the Public**

Integrating lead hazard identification into the housing codes in Muskegon should also consider how best to achieve community consensus. This will require careful articulation of why this is needed and related costs and benefits. Community leaders should be engaged to help articulate why housing codes present an important opportunity to address childhood lead poisoning in Muskegon and what the priorities should be. Those opportunities include:

- Ending the historic divide between housing and public health.
- Taking action before children are harmed, instead of only reacting after the harm has been done.
- Potential for new job creation.
- The benefits of a “health in all policies” approach.
- How the costs of proactive code inspections are less than the costs of treating and educating children with elevated blood lead levels.
- How proactive codes can benefit landlords by reducing the prospect of unanticipated housing repairs and avoidable litigation.
- Building public trust in democratic institutions to address preventable diseases, such as childhood lead poisoning.
- Active engagement of the city’s philanthropic institutions.
- Ending the current inefficient practice of shifting the costs of lead poisoning to our schools and medical care institutions.

To maximize the public’s involvement, the city should consider appointing community leaders and members to an advisory council to provide organized input. During the decision-making process, the city should make sure to consider equity impacts of code changes. Some recommendations to keep in mind include:

- Include community members in the development of the structure of the policy process to ensure that they are represented throughout the process.
- Implement holistic strategies that break down silos.
- Develop awareness campaigns so that the necessity of the policy changes are conveyed to the community.
- Prioritize resources in areas that need them most.
- Protect tenants as the code changes are implemented.

More details for these recommendations and others about addressing equity in lead poisoning prevention policy change can be found in *Achieving Equity in Lead Poisoning Prevention Policy Making: Proceedings from a Consensus Conference*, a report published by Human Impact Partners (available at [https://humanimpact.org/wp-content/uploads/2018/11/Achieving-Equity-in-Lead-Poisoning-Prevention-Policy\\_-Making-Proceedings-from-a-Consensus-Conference.pdf](https://humanimpact.org/wp-content/uploads/2018/11/Achieving-Equity-in-Lead-Poisoning-Prevention-Policy_-Making-Proceedings-from-a-Consensus-Conference.pdf)).

## Conclusions

A recent authoritative report, *10 Policies to Prevent and Respond to Childhood Lead Exposure* (see <https://nchh.org/information-and-evidence/healthy-housing-policy/10-policies/>), showed how every dollar invested in residential lead hazard control (which can include better codes) will yield at least \$1.36 in monetary benefits. Community involvement in such changes is essential. Although housing codes are often considered to be mundane, they can also be an important vehicle to rebuilding trust in government and in the city's ability to solve its challenges. In short, implementation must include an important public education and involvement component if such changes are to be lasting and productive.

Modernization of the Muskegon housing code holds great promise in helping the city prevent childhood lead poisoning. The city already has a proactive rental housing inspection process and an enforcement infrastructure that can be leveraged to include detection of lead hazards before children have been exposed. The recent report on multifamily housing in the city suggests additional improvements are needed to acquire more low-income housing. Changes in housing code language, staffing levels, enforcement, and creative use of subsidies can all be used to help eliminate childhood lead poisoning as a major public health problem.

## Acknowledgments

We thank Sharonda Carson, LeighAnn Mikesell, Kirk Briggs, and Jay Paulson for their helpful data and review of this report.

The opinions expressed here are those of the National Center for Healthy Housing and do not necessarily reflect those of the City of Muskegon.

## **Appendices**

Appendix A: Elements of Effective Housing Code Enforcement Programs

Appendix B: Code Comparison Tool Results

Appendix C: TACTIC Site Visit Notes

## Appendix A: Elements of Effective Housing Code Enforcement Programs

Adapted from *Up to Code: Code Enforcement Strategies for Healthy Housing*.

### Adopt a Strong Housing Code

Housing codes often contain ambiguous phrases in their standards, such as “clean,” “sanitary,” “safe,” and “healthy,” and the lack of detail makes efficient and effective code enforcement difficult. Without specific standards to serve as a guide, property owners, residents, and code enforcement officers can interpret housing codes differently, leaving compliance decisions subject to challenges and residents vulnerable. In addition, many housing codes don’t properly address health-related threats in the home, such as pests, moisture, ventilation, and chemicals (radon, lead, and pesticides, for example).

*Resource/tip: The National Healthy Housing Standard provides model codes that incorporate public health rationale into building code parlance.*

### Fund the Code Enforcement Program Sufficiently

Effective code enforcement programs require sufficient financial resources. In many localities, state law sets forth how the locality may fund its code enforcement operations (typically through general fund, Community Development Block Grant (CDBG) funding, permits/regulatory fees, or fines). State laws may also set forth the types of fees and amount of fines the jurisdiction may assess on those who violate the housing code.

*Resource/tip: Some communities fund their code enforcement programs with moneys from the CDBG program, administered by the U.S. Department of Housing and Urban Development. These grants can fund code enforcement officers’ salaries and related expenses, legal proceedings to enforce housing codes, and rehabilitation or improvement of some types of housing.*

### Train Officers Comprehensively

Code enforcement programs require well-trained officers to enforce the local housing code. Officers need to participate in a broad-based training program, periodic training updates, and routine inspections with other officers to ensure professionalism and consistency in the field. Training should cover all applicable federal, state, and local laws but also best practices, soft skills (e.g., how to work effectively with residents from diverse backgrounds), and availability of community resources to assist residents.

*Resource/Tip: The National Healthy Homes Training Center offers training for code inspectors.*

## **Partner with Community Organizations**

Community organizations can raise awareness of the purpose, policies, and procedures of code enforcement, and provide supplementary resources and services.

*Resource/tip: Code enforcement programs have a variety of potential community partners, including housing advocates, public health professionals, immigrant and refugee service providers, social workers, tenant organizations, and home repair programs.*

## **Promote Cross-Agency Coordination**

Ensuring housing is safe and habitable requires cross-agency coordination. Because responsibility for health and safety is usually divided among various city agencies or departments, intragovernmental communication and collaboration can help make code enforcement more efficient and effective, and less like a series of disjointed, isolated efforts.

*Resource/tip: Staff of the Erie County (NY) Department of Health's Healthy Neighborhoods Program and Lead Poisoning Prevention Program are trained and deputized code enforcement officers, which enables health department staff to formally cite for violations of the Erie County Sanitary Code while conducting home assessments. Deputizing health and/or housing agencies to enforce each other's code provisions assures a unified perspective toward housing-based lead poisoning primary prevention.*

## **Develop a Cooperative Compliance Model**

Under a cooperative compliance model, rather than simply inspecting housing and citing for violations, the code enforcement officer works cooperatively with property owners to help them understand the elements of healthy housing, the importance of code compliance, and how to bring the property into compliance. The code enforcement officer is armed with cooperative tools – information, education, and resources – along with traditional enforcement sanctions. Cooperative compliance allows property owners and officers to work together to improve housing conditions and promote health.

*Resource/tip: Many communities struggle with enforcement. A cooperative compliance approach can reduce the number of properties that require follow-up enforcement action.*

## **Enforce the Local Housing Code**

Most owners do their best to comply with housing codes, but code enforcement programs must be prepared to deal with those who don't. To protect the health and safety of residents effectively, programs need to be flexible and efficient, and have teeth. There are three major types of enforcement: administrative, civil, and criminal.



*Resource/tip: [ChangeLab Solutions’ Healthy Housing Laws that Work: Creating Effective Implementation and Enforcement Clauses](#) explains the different ways local governments can enforce housing and property maintenance codes.*

## **Adopt a Proactive Rental Inspection (PRI) Program**

Traditional code enforcement programs are complaint-based; that is, in response to a resident’s complaint about a substandard housing condition, a code enforcement officer conducts a housing inspection. Under a PRI program, rather than wait for a complaint to trigger a housing inspection, the locality inspects all covered rental housing on a periodic basis. Though the specifics vary by locality, PRI programs typically share the same basic structure: registration, periodic inspections, and enforcement. A PRI system doesn’t replace a complaint-based system and can help both property owners (by incentivizing routine maintenance that prevents costly repairs) and tenants (e.g., by ensuring equitable access to services for vulnerable populations that may be unaware of or fearful of exercising their rights under a traditional complaint-based system).

*Resource/tip: [ChangeLab Solutions’ A Guide to Proactive Rental Inspection Programs and Model Proactive Rental Inspection Ordinance](#) explains how proactive rental inspections can help protect vulnerable residents, preserve safe and healthy rental housing, and work to increase neighborhood property values.*

## **Establish Supplementary Programs**

Jurisdictions can establish auxiliary programs that increase code enforcement effectiveness by educating community members, incentivizing and/or financing repairs, and helping residents move when necessary.

*Resource/tip: [Up to Code: Code Enforcement Strategies for Healthy Housing](#) contains several examples of supplementary programs that other communities have established to support their code enforcement activities.*

## **Evaluate the Code Enforcement Program**

Code enforcement programs should collect and analyze data regularly to better understand their strengths and weaknesses. Evaluation can help monitor functioning, identify areas for improvement, help to justify resources, and provide accountability. Communities may also consider tracking key performance metrics by census tract or neighborhood to ensure equitable access and that the system is working well for all residents.

*Resource/tip: [Data collection and analysis can provide valuable information to both government agencies and the community. Whenever possible, communities should work to establish data](#)*

*sharing with other agencies or programs and, as appropriate or feasible, make data publicly available.*

## **Citation**

*ChangeLab Solutions (eds.). (2015, May). Up to code: Code enforcement strategies for healthy housing. Oakland, CA: ChangeLab Solutions. Retrieved May 23, 2019, from [https://changelabsolutions.org/sites/default/files/Up-tp-Code\\_Enforcement\\_Guide\\_FINAL-20150527.pdf](https://changelabsolutions.org/sites/default/files/Up-tp-Code_Enforcement_Guide_FINAL-20150527.pdf)*

## Appendix B: Code Comparison Tool Results

### I. Background

Location	Property Maintenance Code	Other Code Sections	Other Documents
Battle Creek*  Uses IPMC 2015	Part 14, Title 4, Chapter 1450: Property Maintenance Code  International Property Maintenance Code 2015	842 Rental Housing 1456 Vacant or Abandoned Structures	Rental Permit Application Rental Property Checklist Vacant or Abandoned Registration Form
Bay City  Uses IMPC 2012	Chapter 26 Buildings and Building Regulations Article VII. Property Maintenance Code  International Property Maintenance Code 2012		Rental Housing Checklist  Rental Housing Fees
Detroit*  Based on the 2000 IPMC	Chapter 9, Article 1: Property Maintenance Code	Chapter 9, Article 1, Division 3: Rental Property Chapter 26 - Housing Chapter 24, Article X: Lead Poisoning Prevention Testing and Prevention	
Flint*  Uses IPMC 2015	Chapter 5, Article 3: Property Maintenance Code  International Property Maintenance Code 2015	Chapter 5, Article 3, Sec. 5.3-3 on: Certificate of Compliance for rental properties	
Grand Rapids*  Uses IPMC 2012 with amendments	Title VIII, Chapter 140: Property Maintenance Code  International Property Maintenance Code 2012	Title VIII, Chapter 140, Sec. 8504: Amendments to the Code including certificate of compliance for rentals	

Location	Property Maintenance Code	Other Code Sections	Other Documents
Muskegon  Uses IPMC 2015	Chapter 10 Buildings and Building Regulations Article VI. Property Maintenance Code  International Property Maintenance Code 2015	2015 Michigan Building Code	Property Maintenance Standards Printable Brochure
Michigan*  State Lead Law	Public Health Code, Act 368 of 1978, Part 54A: The Lead Abatement Act		Lead Hazard Control Rules

\*These cities were reviewed in year one of the TACTIC project.

## II. Code Comparison Tool

This report was generated by the Code Comparison Tool, available from the National Center for Healthy Housing at [http://bit.ly/NCHH\\_CCT](http://bit.ly/NCHH_CCT). The NCHH Code Comparison Tool (CCT) gives communities the opportunity to compare their current housing/property maintenance code to the National Healthy Housing Standard (NHHS) and the International Property Maintenance Code (IPMC).

### SECTION E: Chemical Hazards – Building Products

Questions: 10

Total Responses: 25

Answered: 25

Percentage Complete: 100%

*Status: Below Average*

#### Questions E1-E6: Lead

**Significant Opportunities for Improvement.** Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.1, 7.2.1, 7.2.2, 7.2.3, 7.2.4, 7.2.5) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

### Questions E7-E8: Asbestos

**Significant Opportunities for Improvement.** Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.3, 7.3.1, 7.3.2, 7.3.3) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

### Questions E9-E10: Toxic Building Materials

**Significant Opportunities for Improvement.** Your responses indicate your community may benefit by being more protective of health in this area. You can review the National Healthy Housing Standard (NHHS) provisions in this area – NHHS Provisions (7.4.1, 7.4.2) to explore ways to improve your code. Consider implementing some or all of the provisions listed below.

### NHHS Provisions that You Reported Already Exist in Your Local Code

*No provisions exist.*

### NHHS Provisions that Your Local Code Does Not Include (in Part or in Full)

**NHHS Provision 7.1.** All chemical and radiological agents in dwellings, premises, and accessory structures, including but not limited to deteriorated lead-based paint, friable asbestos-containing material, formaldehyde, volatile organic compounds, radon, pesticides, and methamphetamine, shall be contained, stored, removed, or mitigated in a safe and healthy manner consistent with federal, state, and local laws and regulations. When an applicable regulatory limit is more protective than the level included in this section, the more restrictive limit shall apply.

**NHHS Provision 7.2.5.** Lead-based paint shall not be applied to the interior or exterior of any dwelling or dwelling unit.

**NHHS Provision 7.2.1.** Lead levels at or above federal regulatory limits pursuant to 40 C.F.R. § 745.65 are deemed hazardous:

1. Lead-based paint on an existing painted surface – 0.5% by weight or 1.0 milligrams per square centimeter;
2. Dust on floors – 40 micrograms of lead per square foot of settled dust ( $\mu\text{g}/\text{ft}^2$ );
3. Dust on interior windowsills – 250  $\mu\text{g}/\text{ft}^2$ ;
4. Dust on window troughs (wells) – 400  $\mu\text{g}/\text{ft}^2$ ;
5. Bare soil in children's play areas – 400 parts per million (ppm) of lead; and
6. Bare soil in areas of the yard that are not children's play areas – 1,200 ppm.

**NHHS Provision 7.2.2.** Painted surfaces shall be maintained intact. With the exception of paint that is tested and found not to contain lead-based paint in accordance with 40 C.F.R. § 745.82(a), deteriorated paint at a property built before 1978 shall be repaired in accordance with the renovation requirements of 40 C.F.R. § 745, Subpart E, and the underlying cause of the deterioration shall be corrected.

**NHHS Provision 7.2.3.** All renovation, repair, and painting work that disturbs a painted surface in a pre-1978 dwelling shall be performed in accordance with the renovation requirements of 40 C.F.R. § 745, Subpart E, unless the paint has been tested and found not to contain lead-based paint in accordance with 40 C.F.R. § 745.82(a). Dust clearance testing shall be performed at the conclusion of the renovation work.

**NHHS Provision 7.2.4.** With the exception of paint that is tested and found not to contain lead-based paint in accordance with 40 C.F.R. § 745.82(a), a painted surface shall not be disturbed using methods that involve (1) open-flame burning or torching or operating a heat gun at temperatures above a maximum of 1,100° F (593° C); or (2) power sanding, grinding, power planing, needle gun, abrasive blasting, or sandblasting unless such machines have shrouds or containment systems and a high-efficiency particulate air (HEPA) vacuum attachment that collects dust and debris at the point of generation. The shroud or containment system shall release no visible dust or air outside the shroud or containment system.

**NHHS Provision 7.3.** Every owner shall maintain in good repair all asbestos-containing material on the premises. All asbestos-containing material shall be maintained non-friable and free from any defects such as holes, cracks, tears, and/or looseness that may allow the release of fibers into the environment.

**NHHS Provision 7.3.1.** Friable asbestos-containing material shall be abated by licensed asbestos professionals in accordance with federal, state, or local requirements.

**NHHS Provision 7.3.2.** Any renovation, demolition, or other activity that will disturb asbestos-containing materials shall be preceded by asbestos abatement performed by certified asbestos professionals in accordance with federal, state, or local requirements.

**NHHS Provision 7.3.3.** Abatement, removal, and disposal of all asbestos-containing material shall comply with all appropriate federal, state, and local requirements.

**NHHS Provision 7.4.1.** Building materials consisting of hardwood plywood, medium-density fiberboard, and particleboard as defined by 15 U.S.C. 2697(b)(2) shall not be used in maintenance and renovations within dwellings, unless the materials have been certified to meet the formaldehyde emission standards of 15 U.S.C. 2697(b)(2):

1. Hardwood plywood with a veneer core, 0.05 parts per million (ppm);
2. Hardwood plywood with a composite core, 0.05 ppm;
3. Medium-density fiberboard, 0.11 ppm;
4. Thin medium-density fiberboard, 0.13 ppm; and particleboard, 0.09 ppm.

**NHHS Provision 7.4.2.** Building materials used in maintenance and renovations, including but not limited to paints, coatings, primers, glues, resins, adhesives, and floor coverings, shall be certified as having no volatile organic chemicals (VOCs) or low VOC emissions, and having no halogenated flame retardants (HFRs).

### **NHHS Stretch Provisions (Not Assessed in Online Tool)**

**NHHS Stretch Provision 7.2.** Lead present at or above the following limits is deemed hazardous:

1. Lead-based paint on a friction, impact, or chewable surface, damaged or otherwise deteriorated, or non-intact--0.06% by weight;
2. Dust on floors--10 micrograms of lead per square foot of settled dust ( $\mu\text{g}/\text{ft}^2$ );
3. Dust on interior windowsills--100  $\mu\text{g}/\text{ft}^2$ ; and (4) 40  $\mu\text{g}/\text{ft}^2$  on porches.

### **Why Chemical Hazards – Building Products Matter**

Lead is a heavy metal that accumulates in the body when ingested and has toxic effects on the nervous system, cognitive development, and blood-forming and other systems. Sources of lead include lead-based paint and the dust it generates, soil, drinking water, and consumer and other products. Lead-contaminated soil may be found particularly around older buildings contaminated by flaking external paintwork, adjacent to industrial premises using (or previously having used) lead, and near busy roads from the exhaust fumes from leaded gasoline. Lead is readily absorbed from the intestinal tract, especially in children, and its absorption is enhanced by dietary deficiency of iron and calcium.

Exposure to asbestos increases the risk of developing lung disease. Asbestos products were historically used extensively in building materials. Vermiculite insulation in homes may be contaminated with asbestos. Vermiculite insulation should be assumed to be contaminated with asbestos and should not be disturbed. Trained professionals must be hired to remove vermiculite insulation. Formaldehyde is a prominent VOC found in household and construction products. It is a colorless, strong-smelling gas that can cause watery eyes, nausea, coughing, chest tightness, wheezing, skin rashes, and allergic reactions, and a burning sensation in the eyes, nose, and throat.

Formaldehyde is classified by the World Health Organization as a known human carcinogen. The most significant source of formaldehyde in the homes has been pressed-wood products

made using adhesives that contain urea formaldehyde (UF) resins.

### **Suggested Next Steps**

You have your results. Now what? Here are some suggested next steps:

- Review your results and identify places where your code is already strong and where there may be an opportunity to improve your local codes.
- Use the graphic provided (or export your data and create one yourself) to create a memo or presentation summarizing these results to start a conversation about whether there is an opportunity for action in your community.
- Download the National Healthy Housing Standard for reference as a model code.
- Read about how other communities have used the NHHS to strengthen their local codes and are using codes to improve health.
  - Healthy Housing Codes:  
<https://nchh.org/information-and-evidence/healthy-housing-policy/state-and-local/healthy-housing-codes/>
  - Proactive Rental Inspections:  
<https://nchh.org/resources/policy/proactive-rental-inspections/>
  - Incentivizing Healthy Housing:  
<https://nchh.org/resources/policy/incentivizing-healthy-housing/>
  - APHA: Healthy Homes:  
<https://www.apha.org/healthy-homes>
- Ask for technical assistance or help getting connected to a peer mentor. Contact Jonathan Wilson ([jwilson@nchh.org](mailto:jwilson@nchh.org)).



## **Appendix C: TACTIC Site Visit Notes**

### **Meeting One: March 5, 2020 – City of Muskegon Offices**

#### **Attendees:**

Sharonda Carson, Community Development Specialist, City of Muskegon

LeighAnn Mikesell, Director of Development Services, City of Muskegon

Kirk Briggs, Chief Building Official, City of Muskegon

Jay Paulson, Deputy Director, City of Muskegon Fire Department

David Jacobs, Chief Scientist, National Center for Healthy Housing

#### **Program Structure/Capabilities**

The City of Muskegon employs two code inspectors who receive on-the-job training. The city plans to have the inspectors complete the lead training course offered by MAHO.

Per the city's property maintenance code, rental properties are inspected and obtain a certificate of compliance. These certificates of compliance are valid for six years with no violations or three years with violations. About 70% of rental properties receive three-year inspections, while the remaining 30% receive six-year inspections.

An average rental inspection takes 15-30 minutes, and code inspectors average 20 multifamily and five single-family inspections per day. Seventy percent (70%) of cases are fixed in under 30 days, 30% are not resolved, and 5% of the unresolved cases result in court proceedings. Civil infractions receive a white ticket in court, and most receive blue tickets that result in administrative hearings where a compliance deadline is agreed upon.

The city estimates that 70% of property owners comply with code requirements before a complaint is lodged. Of the units inspected for compliance with the property maintenance code, 70% of units have deteriorated paint violations. The city reinspects all cases in their quality assurance process to ensure repair compliance.

#### **Potential Recommendations:**

- State-level International Property Maintenance Code (IPMC) code change
- Incorporate rehabilitation code – this seems to be separate
- Local code language changes
- Collaborate with health department
- Federal subsidies through CDBG and Medicaid CHIP

# **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project)**

## **New Code Reports for Cities**

# **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project)**

## **Implementation Guide**

by

**Sarah Goodwin  
David E. Jacobs, PhD, CIH**

for the  
**Michigan Department of Health and Human Services,  
Child Lead Exposure Elimination Innovations Grant**

**Contract Number E20193423-00**

**May 31, 2020**

**National Center for  
HEALTHY HOUSING**

## Introduction

The Technical Assistance for Code Transformation and Innovation Collaborative (TACTIC) project was implemented in 2019-2020 by the National Center for Healthy Housing (NCHH) with funding from the Michigan Department of Health and Human Services.

After carefully analyzing their respective ordinances, NCHH published a series of individual reports for six Michigan cities (Battle Creek, Bay City, Detroit, Flint, Grand Rapids, and Muskegon) and the state as a whole about how to use local housing codes to prevent exposure to lead paint hazards proactively. While the individual reports were built around the capacities and situations of the specific cities, the general recommendations can be adopted by any city looking to improve their local housing codes. This implementation guide will help other cities and advocates identify how to apply the recommendations laid out in the TACTIC reports to their own cities and describe some best practices for adopting these or similar recommendations.

## Section One: Understanding Your City

### Understanding What Your Codes Include

For the most comprehensive understanding of how your city's codes do and do not align with models, we suggest using the Code Comparison Tool ([bit.ly/NCHH\\_CCT](https://bit.ly/NCHH_CCT)) developed by NCHH. This tool allows you to compare your local codes with both the IPMC and the National Healthy Housing Standard ([bit.ly/AboutNHHS](https://bit.ly/AboutNHHS)) by answering a checklist of questions about what your code covers. We encourage everyone using the tool to complete the whole thing, as it covers many aspects of healthy housing including ventilation, injury prevention, moisture control, and others; however, the questions pertaining to lead hazards can be found in Section E (Chemical Hazards – Building Products). The Code Comparison Tool will generate a list of the standards that your code already includes as well as a list of standards that are missing.

### Understanding How Your Code Program Operates

While the Code Comparison Tool (or any comparison of the code's plain language) will provide an understanding of what the code covers, it won't explain how well any codes program is being enforced or what the city's capacity for enforcement is. To fully understand your city's situation, you should answer the following questions. If you are located within the city, this will be information you already have; if you are working within the community, you may have to interview city staff or review city reports to obtain this information.

### **Program structure/capabilities**

- What training do code inspectors complete? Does the curriculum cover how to identify paint condition?
- Is there a schedule of inspections?
- How long does a code inspection take for a housing unit (on average)?
- How many code inspectors are employed, and how many units do they inspect per day (on average)?
- How long does a case remain open (on average)?

### **City capacity**

- How many housing units are covered by the code, and how many receive scheduled code inspections?
- How many of these units contain children under six years of age (if known)?
- How many of these units are single-family, two-unit owner-occupied, two-unit absentee-owned, and three or more units?

### **Compliance**

- How do property owners comply with code requirements *before* a complaint is lodged?
- Of the units inspected for compliance with the code, how many have violations?
- If they have violations, what percentage of landlords comply without appeal?
- For units with code violations pertaining to deteriorated paint, how long does it take a typical landlord to comply?
- What percentage of landlords choose to go to court to contest the notice of violations?
- What does your quality assurance process for repair compliance include?

## **Section Two: Understanding the Recommendations**

The key recommendations included in the TACTIC reports are described below. While each city is different, these recommendations assume that the city has no existing lead hazard requirement aside from a potential visual inspection for deteriorated paint. They also assume that the city either has a proactive rental inspection system in place, is developing one, or is interested in strengthening their rental regulations to be more proactive. (For more information about the elements of building a PRI program, see [bit.ly/NCHHpubsPRI](https://bit.ly/NCHHpubsPRI)). By going through these recommendations and the accompanying explanations about methods, you

should be able to assemble recommendations for your own city. Note that homes built after 1978 can be excluded from the proposed requirements.

1. Require testing of deteriorated lead paint and dust as part of the certificate of compliance or similar rental occupancy requirement to determine actual risk of lead hazards (or require a full risk assessment). Visually examining paint is insufficient, because the lead content of deteriorated paint and dust cannot be seen by the naked eye.
2. Change the existing housing code language to require remediation of deteriorated lead-based paint using lead-safe work practices and clearance dust testing in all pre-1978 rental units in which young children reside, are expected to reside, or could reside or visit. Such testing is most important in homes occupied by children under six years of age and/or pregnant women. The dust testing should comply with the [recent lead dust guidance values](#) established by the U.S. Department of Housing and Urban Development for its lead hazard control grantees.

*Explanation:* Lead-safe work practices (in brief) involve occupant and worker protection, containment, use of wet methods during paint removal to minimize dust emission, and use of durable new paint (or other coatings, enclosures, or building component replacements), followed by specialized cleanup methods and clearance dust testing to ensure cleaning has been adequate.

Dust testing is also an important part of this recommendation because there may be units with no visible deteriorated paint but that still contain lead dust hazards as a result of addressing deteriorated paint without following lead-safe work practices during renovation or cleanup. Dust testing is a relatively simple procedure carried out across a measured surface area on floors and windowsills, but the testing must be performed by trained and certified personnel and requires laboratory analysis.

There are multiple ways that cities have chosen to require and conduct paint and dust testing. For example, Rochester, NY, does not require paint testing, but presumes that all deteriorated paint contains lead and requires lead-safe work practices for all deteriorated paint. Other cities, including Detroit, require lead risk assessments, which measure lead content in deteriorated paint, dust, and soil. Regardless of the exact model a city chooses to follow, the important elements are *identifying lead hazards* and *requiring that hazards be addressed safely*.

There are two methods of measuring lead in paint:

- i. Careful collection of all layers of paint from deteriorated surfaces, followed by laboratory analysis accredited under the EPA National Lead Laboratory Accreditation program; or

- ii. On-site analysis using portable x-ray fluorescence (XRF) lead paint analyzers.

Either method is acceptable. Paint chip collection has lower up-front costs but can be tedious and removes paint from a surface that must be sealed following collection. XRFs have a higher up-front cost but yield immediate results and do not involve destructive paint chip sampling.

3. Increase the number of housing code inspectors. Because dust and paint testing will take about an hour per home, the number of housing code inspectors should be increased.

*Explanation:* Each city will need to estimate their own budget and staff needs based on current capacity and the requirements of the program they are planning to implement. For the cities in the TACTIC reports, we used the estimated number of rental units with children, number of units inspected per year, and approximate time needed for each inspection and administrative tasks to produce an estimated increase in staff hours.

4. Train and certify housing code inspectors to collect paint and dust samples properly as part of code inspections instead of only doing so after a child has already been exposed.

*Explanation:* If code officers will be collecting paint and dust samples, they will need to be certified according to state requirements. This is typically achieved with a two-day training course.

5. Amend the language of the code violation notices to include deteriorated lead-based paint and elevated dust lead levels.
6. Involve the public in proposed changes to the code and seek comment.
7. Public education efforts should include the importance of deteriorated lead-based paint and the associated contaminated dust and soil it generates.
8. Changes to local codes should be evaluated by documenting changes in both housing quality and childhood blood lead levels and other metrics.

## Section Three: Best Practices for Implementation

### Design a Strategic Plan with Short-, Mid-, and Long-Term Outcomes

One of the most important things to keep in mind about the recommendations outlined in the TACTIC report is that a well-functioning, proactive rental code and enforcement structure is a system with many interrelated elements. While on one hand this means that cities need to take great care in implementing these recommendations in order to end up with an effective

program, it also means that a lot of ground work can be done even if large-scale code changes are initially out of reach.

In the second year of funding for this project, NCHH advised staff in the city of Battle Creek as they created an implementation plan based on the TACTIC recommendations. When first discussing the possibility of implementation, Battle Creek was clear that moving to amend their codes to require paint and dust testing, and the increased funding and staff capacity that would involve, was not a possibility for the city in the short term. However, the city was able to identify several interim steps they could take in the short term to increase their staff and community capacity. These steps included:

- Provide training for code compliance officers to become lead certified (1-4 months).
- Educational materials on lead hazards to be included with orders to repair issued for deteriorated paint (1-4 months).
- Coordinate with the county health department on potential data-sharing opportunities (1-4 months).
- Discuss recommendations and statistics with the Calhoun County Lead Task Force and Rental Roundtable (5-8 months).
- Expand collaborations with other local programs (5-8 months).

The full summary of Battle Creek's implementation plan can be found as an appendix to this guide. *[The document appears elsewhere in this report.]*

## **Have a Good Understanding of the Problem**

The city should facilitate data sharing with the local health department (typically located in the county) who can provide elevated blood lead level (EBLL) data. The city may benefit from the health department's data to get a better picture of how lead poisoning affects their community, and the health department may be able to use city data on code compliance to inform their own prevention efforts.

In addition to understanding local EBLL data, the city will want to have a good understanding of where and who all the rental properties and landlords are. Even in cities that already have a rental registration program and scheduled inspections, there may be an estimated number of rental units that are unregistered; for example, Battle Creek estimated that 500 of their properties were unregistered, and Bay City had about 2,800 rental properties registered out of an estimated total of 5,000.

Finally, cities should arm themselves with information about the potential costs and benefits of changes to their codes program. It is likely that conversations with partner programs, city members, and community members will raise concerns about feasibility, cost, or unintended



impacts on the local housing market. While it is important to recognize and plan for any costs and negative impacts of the changes, city staff and community leaders can also emphasize the following societal benefits and opportunities presented by the recommendations:

- Acting before children are harmed, instead of reacting only after the harm has been done.
- Potential for new job creation.
- How the costs of proactive code inspections are less than the costs of treating and educating children with elevated blood lead levels.
- The benefits of a “health in all policies” approach.
- Ending the historic divide between housing and public health.
- How proactive codes can benefit landlords by reducing the prospect of unanticipated housing repairs and avoidable litigation.
- Building public trust in democratic institutions to address preventable diseases, such as childhood lead poisoning.
- Active engagement of the city’s philanthropic institutions.
- Ending the current inefficient practice of shifting the costs of lead poisoning to our schools and medical care institutions.

## **Involve Other City or County Departments and Community Stakeholders**

Successful implementation will require collaboration with multiple governmental departments and external partners, both in the design of the program and while it is being rolled out. While every city will have a different set of local dynamics in play, the following groups should generally be involved:

- **Community members, including tenant groups, parent groups, and landlords.** The city should involve community members during the drafting process of the new program, rather than seeking comment or deploying public education after a plan has been finalized. Some cities may want to consider appointing community leaders and members to an advisory council to provide organized input; others may have existing advisory groups or task forces that can take part in this process.
- **Contractors.** A requirement that property owners remediate lead hazards may mean an increase in demand for contracting services. A city may also decide to use third-party inspectors for their code requirements as was done in Detroit. In either case, the city will need to understand the availability and capacity of lead-certified contractors in the area.

- **Staff from city or county departments or programs.**
  - *Codes/inspections.*
  - *Lead and healthy housing services, including a HUD Lead Hazard Control Grant, if applicable.* The staff implementing the new codes program will need to have a good understanding of other services that exist in the area and whether residents or property owners can be referred to those services.
  - *Health department.* As described above, the city should work with the health department to share data.
  - *Legal department and housing court.* The city will need to ensure that enforcement of new code requirements is effective. This may include lead hazard awareness training for city attorneys charged with enforcing lead-related code violations and/or administrative law judges. The city may also need to factor in time in housing court when calculating staff time requirements.

The final report from the Lead Free Kids GR's (Grand Rapids) Lead Free Advisory Committee, included as an appendix to this guide, includes a section on partnership opportunities which is a helpful example of other community programs and groups that cities should consider working with.

## **Take Advantage of and Build from Existing Programs and City Structures**

Implementing the recommendations will be easier if the city can understand and build on the strengths and opportunities of existing programs. Examples of this kind of strategic thinking among the TACTIC sites included the following:

- Using funds through a HUD Lead Hazard Control Grant to train code enforcement officers to become lead certified was a potential activity for Flint as they had just started a new grant.
- Battle Creek shared that a previous public education campaign had resulted in a demonstrated increase in voluntary child testing, indicating that the methods used were effective at reaching an audience and could be reprised with an emphasis on home hazards.
- Bay City has an ongoing relationship with a group of landlords who would be a good forum for discussing potential code changes as they're developed.

It is also important to consider any opportunities for change presented by other internal city processes, such as annual budget cycles or strategic planning.

## Plan for Rollout Impacts

Depending on the size of the city and the average age of housing, rollout of the implemented changes can be daunting. The following are three key strategies to help ensure that city and community capacity are up to the task:

- **Consider targeting initial enforcement at high-risk areas.** When rolling out their new lead ordinance, Detroit brought ZIP codes online one at a time. This prioritizes modulates the burden and allows property owners to prepare for when they will fall under the new requirement.
- **Introduce the new requirements to tenants and landlords well in advance.** As described above, both resident and landlords should be informed and involved during the policy development process, and the city should work to educate the population as broadly as possible before the changes take effect.
- **Identify and prepare supplemental supports.** To help with costs of the changes that fall on property owners, the city should work to implement supplemental programs such as a revolving loan fund or free renovation, repair, and painting (RRP) training.

## Further Reading

- [Final Report for the City of Battle Creek](#)
- [Final Report for the City of Bay City](#)
- [Final Report for the City of Detroit](#)
- [Final Report for the City of Flint](#)
- [Final Report for the City of Grand Rapids](#)
- [Final Report for the City of Muskegon](#)
- [Year 2 Implementation Update for the City of Battle Creek](#)
- [Year 2 Implementation Update for the City of Grand Rapids](#)
- [How to Make Proactive Rental Inspections Effective](#)

# **How to Make Proactive Rental Inspections Effective**

**by**

**Amanda Reddy, MS**

**for the  
Michigan Department of Health and Human Services,  
Child Lead Exposure Elimination Innovations Grant**

**Contract Number E20193423-00**

**May 31, 2020**

**National Center for  
HEALTHY HOUSING**

## How to Make Proactive Rental Inspections Effective

*Have a proactive rental inspection program already in place?*

*Have a newly enacted ordinance that you are trying to implement?*

*Live in a community that isn't quite ready to adopt a PRI program?*

Regardless of where your community is in the process of adopting a more proactive approach to housing inspection, now is a great time to think about all the other components that go into creating an effective proactive rental inspection (PRI) program. Traditional complaint-based systems promote disparities as vulnerable populations (e.g., undocumented residents, low-income residents) may be fearful of repercussions for reporting poor housing conditions. An effectively designed and well-implemented proactive rental inspection program can increase equity and improve housing conditions.

Communities spend a lot of energy in designing, passing, and implementing the core components of a PRI ordinance, but an effective system is one that looks beyond enforcement and supports residents and property owners in taking the steps they need to ensure safer home environments. Strong and effective enforcement mechanisms are also important, but a well-designed proactive rental inspection program will support more property owners in correcting violations without the need for enforcement action. Similarly, even in the absence of a PRI program, instituting these components can help lay the groundwork for an effective program later and immediately improve outcomes for residents and property owners.

According to [Up to Code: Code Enforcement Strategies for Healthy Housing](#), a 2015 document by ChangeLab Solutions and partners (including NCHH), there are eight components of an effective code enforcement program that go beyond PRI and enforcement<sup>4</sup>: strong housing code, adequate funding, trained officers, community partners, cross-agency collaboration, cooperative compliance, supplementary programs, and evaluation.

### Strong Housing Code

Building codes often contain ambiguous phrases (e.g., safe, decent) that are subject to varied interpretation, and therefore uneven (and often inequitable) application. Additionally, housing codes often inadequately address health-related threats in the home, such as pests, moisture, ventilation, and chemicals like radon, lead, and pesticides.

*Strategy in action:* The communities of [Tukwila, WA](#), and [Dallas, TX](#), used the National Healthy Housing Standard to assess and strengthen their local housing code to be more protective of health.

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<sup>4</sup> Note that there are 10 components including PRI and enforcement.

*Tools you can use:* You can use an [online code comparison tool](#) to assess your local housing code and receive a customized report with model codes to incorporate to strengthen codes to be more protective of health.

## **Adequate Funding**

Good policy is not enough. Programs need adequate funding to be effectively implemented and while state and local law will govern what is possible in a specific community, PRI and rental inspection programs are often funded through a combination of general funds, Community Development Block Grant (CDBG) funds, fees for permits/licenses (e.g., occupancy certificates, renovation permits), and fines/penalties (e.g., for failure to correct violations).

*Tools you can use:* The U.S. Department of Housing and Urban Development defines eligible code enforcement activities that may be supported with CDBG funds (see [Notice CPD-14-016: Use of CDBG Funds for Code Enforcement Activities](#)).

## **Trained Officers**

It may seem obvious that officers should be trained in all applicable federal, state, and local laws, but effectively run programs also equip officers with training on best practices, soft skills to help them work cooperatively with landlords and tenants, and information on resources to help residents (e.g., loan repair programs, free lead-safe work practice classes, relocation or translation services). In addition to a broad-based training program, officers should also participate in periodic training updates, and routine inspections with other officers to ensure professionalism and consistency in the field. Programs should also consider training other staff that interact with property owners and tenants to help ensure a uniform and positive experience throughout the entire process.

*Tools you can use:* ChangeLab Solutions describes key elements of a comprehensive training program for code enforcement officers and staff in [Up to Code: Code Enforcement Strategies for Healthy Housing](#).

## **Community Partners**

Municipal leaders and agencies often have limited resources and/or may not be the most effective messenger for certain activities or services. Community organizations can educate residents (both landlords and tenants) about their rights, responsibilities and the process, but they can also provide needed supplementary services (see “Supplementary Programs” below).

*Strategy in action:* The [Greensboro Housing Coalition](#) provides assistance to residents who live in homes with health and safety hazards through education, referrals, and landlord tenant advocacy. This has included code enforcement education for residents in multiple languages and working directly with code officials and residents to identify

properties in need of attention, minimize dislocation, and help solving complicated housing cases.

*Strategy in action:* In Buffalo, NY, a coalition of partners, the Buffalo and Erie County Lead Safe Task Force, unveiled the [Get Ahead of Lead](#) campaign to educate property owners and tenants about resources available to make properties lead-safe as well as the responsibilities of landlords to protect tenants from lead exposure. Notably, the campaign was developed with input from the target audiences.

## Cross-Agency Collaboration

Cross-sector or cross-agency relationships can also help to increase capacity when resources are constrained and have the added benefit of creating a more seamless process for residents. In many cities, depending on the housing code violation, responsibilities may be spread across multiple agencies, making the process confusing for tenants and leading to duplication of effort or, even worse, nobody taking responsibility. Coordination within and across agencies can minimize these challenges and improve the capacity of a rental inspection program.

*Strategy in action:* Staff of the Erie County (NY) Department of Health’s Healthy Neighborhoods Program and Lead Poisoning Prevention Program are trained and deputized code enforcement officers, which enables health department staff to formally cite for violations of the Erie County Sanitary Code while conducting home assessments. Deputizing health and/or housing agencies to enforce each other’s code provisions assures a unified perspective toward housing-based lead poisoning primary prevention, increases the capacity for code enforcement, and streamlines the experience for residents and property owners by reducing the need for handoffs to other city agencies/programs.

## Cooperative Compliance

Adopting a cooperative compliance model means transforming the traditional “us versus them” dynamic (city versus landlord or renter versus landlord) in code enforcement transactions and equipping your code enforcement team with tools to work with and support property owners throughout the process...from why it’s important to how it can be fixed and getting connected to resources to help property owners do the right thing. The code enforcement officer is armed with cooperative tools – information, education, and resources – along with traditional enforcement sanctions. Cooperative compliance allows property owners and officers to work together to improve housing conditions and promote health. Many communities struggle with enforcement. A cooperative compliance approach can reduce the number of properties that require follow-up enforcement action

*Strategy in action:* The [Alameda County Healthy Homes Department](#) uses a collaborative approach to work with residents and property owners, including providing residents with access to free classes on lead-safe work practices and financial assistance to make needed repairs.

## Supplementary Programs

Supplementary programs, whether run by a city agency or a community partner, are essential to the effective functioning of a PRI or other inspection program. These can include educational programs to help residents and landlords understand their responsibilities and any assistance that may be available, resources to subsidize or pay for repairs (e.g., low- or no-interest loan programs), relocation assistance, translation services, and more. As noted above, a more robust system that makes it easier for renters and property owners to understand their obligations and access resources to help them meet those responsibilities will also mean that fewer properties will require enforcement action.

*Strategy in action:* In Los Angeles, CA, the [Rent Escrow Account Program](#) (REAP) incentivizes owners to return properties to habitable conditions by giving tenants in eligible units a reduction in rent. Tenants also have the option of paying their reduced rents into an escrow account that can be used by owners or tenants to make repairs, pay utilities, or for relocation to a new apartment.

*Tools you can use:* You can read about examples of low or no-interest loan programs [here](#). Another resource, [Up to Code: Code Enforcement Strategies for Healthy Housing](#), contains several examples of supplementary programs that other communities have established to support their code enforcement activities.

## Evaluation

Code enforcement programs should collect and analyze data regularly to better understand their strengths and weaknesses. Evaluation can help monitor functioning, identify areas for improvement, help to justify resources, and provide accountability. Communities may also consider tracking key performance metrics by census tract or neighborhood to ensure equitable access and that the system is working well for all residents.

*Strategy in action:* Kansas City, MO, [publishes their housing code data online](#). The online data includes a dashboard summarizing performance across a variety of metrics, the ability to search for specific cases or properties, and to export data for analysis offline.

*Tools you can use:* The [House Facts Data Standard](#) is a uniform format for reporting government data on the operation, safety, and performance of residential buildings. The City of Kansas City, MO, publishes their housing code data online using this format.



# **Technical Assistance for Code Transformation and Innovation Collaborative (the TACTIC Project)**

## **Attachments**

## **City of Battle Creek**

### **Summary of Recommendations and Implementation Plan**

#### **Implementation (1 – 4 Months)**

**Public education efforts should include the importance of deteriorated lead-based paint and the associated contaminated dust and soil it generates. Previous public education efforts have resulted in an increase in voluntary child lead testing – future efforts could include more information about the importance of home testing.**

- ✓ Informational lead pamphlets are mailed to every rental property owner as the property is inspected and permitted on a 3 or 6 year permit cycle. Materials are provided to the City by the EPA as available.
- ✓ Participants of the City Paint Program are provided the EPA lead pamphlet prior to awarding the voucher. Additionally, they are required to watch online videos on lead paint that highlights lead safety measures.
- ✓ Make informational lead pamphlets available to the public in the Code/Inspections Office and on the City website.

**Train housing code inspectors to properly collect paint and dust samples as part of code inspections, instead of only doing so after a child has already been exposed. One of Battle Creek’s code inspectors is already fully certified as a lead-based paint inspector and risk assessor. Other local officials employed as lead-based paint risk assessors could be deputized as code inspectors.**

- ✓ Explore and provide lead education and training for Code Compliance Officers to become lead certified.

**Amend the language of the code violation notices to include deteriorated lead-based paint and elevated dust lead levels. The current language seems to involve only deteriorated paint, not deteriorated lead-based paint.**

- ✓ The adopted Property Maintenance Code does not address dust levels nor require lead testing. Incorporate supplemental language on Orders to Repair that includes language that deteriorated paint may be lead-based causing lead exposure.
- ✓ Include EPA informational lead pamphlets with every Order to Repair issued for violation of deteriorated paint.

**Facilitate data-sharing between the City and the County Health Department. The City could provide a list of homes with a higher risk of hazards, using variables such as chipped paint and lack of compliance.**

- ✓ Coordinate a meeting with the County Health Department to discuss value in data-sharing and potential follow up utilization /action. Suggest that the City provide a quarterly report of properties that have been issued an Order to Repair for deteriorated paint that have failed to comply with correcting the violation.

#### **Implementation (5 – 8 Months)**

**Work with community-based programs to expand capacity to educate landlords and residents, assistance with temporary relocation and expand referrals to social services for other needs identified in the home.**

- ✓ Continue active role on the Calhoun County Lead Task Force.

- ✓ Explore opportunities for expanded and new collaborations / initiatives: Legal Services of Southwest Michigan, E-Paint, Rental Roundtable, Neighborhoods Inc, Calhoun County Land Bank, Habitat for Humanity, Battle Creek Housing Commission, etc.

**Involve the public in proposed changes to the code and seek comment. This includes working for the protection of tenants during the implementation of code changes.**

- ✓ Share information / statistics with Calhoun County Lead Task Force and the Rental Roundtable (landlords & tenants).

### **Implementation (Long Term)**

**Consider increasing funding and capacity for code compliance, perhaps using Community Development Block Grant funding or other funding.**

- ✓ Current funding (CDBG, Solid Waste and General Funds) does not allow for increased allocations for additional Code Compliance staff or costs to fund lead testing.

**Require testing of deteriorated lead paint and dust as part of the Certificate of Compliance to determine actual risk of lead hazards. The current practice of visually examining paint is insufficient, because the lead content of deteriorated paint and dust cannot be seen by the naked eye.**

- ✓ Prior to considering implementation the following includes a few aspects that will need to be explored and assessed: impact on personnel time to collect and enforce, costs associated with collecting samples, testing, and abatement.

**Change the existing housing code language to require remediation of deteriorated lead-based paint using lead-safe work practices and clearance dust testing in all rental units in which young children reside or are expected to reside or could reside or visit. The [National Healthy Housing Standard](#) may be utilized as a model code. The dust testing should comply with the recent lead dust guidance values established by the US Department of Housing and Urban Development for its lead hazard control grantees.**

- ✓ Prior to considering implementation the following includes a few aspects that will need to be explored and assessed: impact on personnel time to verify that lead-safe work practices were used to include completion of clearance of dust testing, research and impact of limiting this to only rental units vs. all residential property.

**Evaluate the results of these changes by documenting changes in housing quality, compliance time, complaints and childhood blood lead levels. Other factors to consider in evaluation include census tract or neighborhood comparisons to ensure the system is monitoring effectively and equitably.**

- ✓ Continue working in partnership with the Calhoun County Lead Task Force to assess impacts of increased lead awareness, education, and abatement of lead hazards.



# CITY OF GRAND RAPIDS AGENDA ACTION REQUEST

**DATE:** February 25, 2020

**TO:** Mark Washington, City Manager

**COMMITTEE:** Committee of the Whole

**LIAISON:** Mark Washington, City Manager

**FROM:** Karyn Ferrick, Legislative Affairs Manager  
Executive Office

**SUBJECT: Lead Free Kids Grand Rapids Advisory Committee Final Report**

Mayor Rosalynn Bliss assembled the Lead Free Kids Grand Rapids Advisory Committee (committee) during the summer of 2018 to work on the issue of rising numbers of children who have tested positive for lead poisoning in Grand Rapids. The committee was comprised of Mayor Rosalynn Bliss; City Commissioners Senita Lenear and Kurt Reppart; County Commissioner Robert Womack; several community stakeholders including Kimberly Baron, Matthew Beresford, Sarah Edgington, Ken Fawcett, Paul Haan, Candy Isabel, Cle Jackson, Ken Klomparens, Alex Markham, Raven Odom, Clay Powell, John Smith, Shannon Wilson; Kent County Health Department staff including Joan Dyer, Joann Hoganson, and Sara Simmonds; numerous City staff including Karyn Ferrick (Chair), Doug Matthews, Connie Bohatch, Alison Sutter, Lou Canfield, Jonathan Klooster, and Laura Olson; and former members Doug Stek, Chandra Colley, LyRee Adams, David de Velder.

The committee met bi-monthly for a total of 9 meetings between August of 2018 and December of 2019. In that time, the committee heard from the Kent County Health Department, the Michigan Department of Health and Human Services (MDHHS), the National Center for Healthy Housing, Healthy Homes Coalition of West Michigan, Parents for Healthy Homes, the Rental Property Owner's Association, and the City's Housing Rehabilitation Office.

The committee's work focused on reviewing, assessing and providing guidance on City housing and lead-based paint remediation procedures, plans and programs. That work concluded at the end of 2019 with an understanding that all of the recommended options for consideration would be advanced in a final report to the City Commission in the hopes of informing future discussions and deliberations regarding this critical issue.

After several discussions regarding strategies and ideas to assist the City in its efforts to eradicate lead-based paint hazards in housing, the committee ultimately settled on the 21 recommended options that are presented below for consideration. They are primarily

organized in three categories: city initiatives; state legislation; and partnership opportunities.

### Recommended Options for Consideration

#### CITY INITIATIVES

- Designate a liaison to be the single point of contact to coordinate and be accountable;
- Establish a timeline with outcomes and deliverables for action on city-led initiatives; and
- Evaluate outcomes and deliverables based on housing quality and child blood lead levels.
- Amend the City's housing code to require the following in the rental certification process:
  - Lead-based paint testing in homes built before 1978;
  - Remediation of lead-based paint hazards identified; and
  - Consider making this a targeted approach.
- Increase funding and capacity for training, code compliance and enforcement.
- Before issuing permits, verify contractor certification in lead safe work practices for renovation, repair and paint projects.
- Review and evaluate City programs and service requirements for lead-based paint remediation and abatement activities to ensure that funding is prioritized for those most at risk and most in need and barriers to achieving that prioritization are removed.

#### STATE LEGISLATION – *Propose and Support the Following Initiatives:*

- Statutory remedy for lessee to terminate if lead hazards are present in the rental by amending the Truth in Renting Act, PA 454 of 1978.
- State adoption of the federal RRP rule for renovate, repair, and paint projects. Require that contractors are trained and certified in the use of lead safe work practices by amending the Occupational Code, PA 299 of 1980.

- Codify a requirement for a lead inspection, testing or clearance before a sale or transfer of property intended for occupancy if built before 1978. Consider amendments to the Seller Disclosure Act, PA 92 of 1993. See [HB 5361](#), *sponsored by Representative Leslie Love*.
- Provide tax incentives for remediation of lead-based paint hazards in homes. For example, provide a tax credit by amending the Income Tax Act, PA 281 of 1967.
- Create a Lead Safe Housing Fund in the Michigan Department of Treasury for prevention of lead hazard exposure and assistance for families and children affected by lead poisoning. Possible source of funding is leveraging a fee on the sale of paint in Michigan. See [House Bill 5366](#), *sponsored by Representative Rachel Hood*.
- Create economic development and housing tools and incentives for lead abatement activities.
- Ensure flexibility in existing sources of State funding and target high risk areas and populations to treat the source of childhood lead poisoning.

## PARTNERSHIP OPPORTUNITIES

- Kent County – improved data sharing and integration; collaborate with health system to provide mobile health services in high risk neighborhoods including offering assistance, support and resources with lead hazard exposure.
- Foundations – Create philanthropic fund to provide resources to high risk populations and families and children affected by lead poisoning.
- Courts and legal professionals – Provide housing education specific to landlord tenant rights and responsibilities.
- Utilities – Identify programs offered by utilities and other energy efficiency programs to remediate lead (i.e. door and window replacement rebates and incentives).
- Community organizations – Offer free training and education about lead safe work practices for DIY home repair projects; contractor certification in RRP; and other lead-based paint hazard and risk identification in homes.

## ADDITIONAL OBSERVATIONS

Members of the committee were provided a survey to share with other members of the community, review the recommended options, and rank the items within each of the categories.

The survey results indicated that all of the items were important to someone and that priority ranking varied among members. In terms of additional input received, much of the comments were related to items already included in the recommended options. Below is a summary of some of the additional comments received:

- Prioritization was difficult as all of these items are important;
- Coordinate more intentionally with the County going forward;
- Add dust wipe sampling to rental certification process;
- Testing and dust wipe sampling in homes should be targeted at high risk areas;
- Collaborate with energy efficiency and weatherization programs;
- Funding is needed to assist families affected by lead;
- Landlords who intentionally rent homes with lead hazards to families should be penalized; and
- Legislative changes should focus both on rental and owner-occupied homes.


## CONCLUSION

Since the committee concluded its work in December, City staff have continued to meet with partners, discuss and analyze the committee's recommended options, and determine next steps. An important collaborative effort with Kent County is underway that will facilitate action to address and prevent lead hazards in our community.

City staff also participated in a press conference in Lansing earlier this month with Representative Rachel Hood and other sponsors in support of the recently introduced Healthy Homes, Healthy Families legislative package to protect Michigan families from lead poisoning.

With budget and strategic planning work underway, the information contained in the final report is timely and will be thoroughly analyzed and carefully considered.

Prepared by Alicia Bernt

  
CORRECT IN FORM  
DEPARTMENT OF LAW