



# *Municipal Action for Lead-Safe and Healthy Homes*

New Jersey League of Municipalities Conference

November 17, 2021



Facebook: [SustainableJersey](#) | Twitter: [@SJ\\_Program](#), [@SJ\\_Schools](#) | Insta: [sustainable\\_jersey](#) | LinkedIn: [sustainable-jersey](#)

# WHY?

## Municipal Action for Lead-Safe and Healthy Homes

New Jersey League of Municipalities

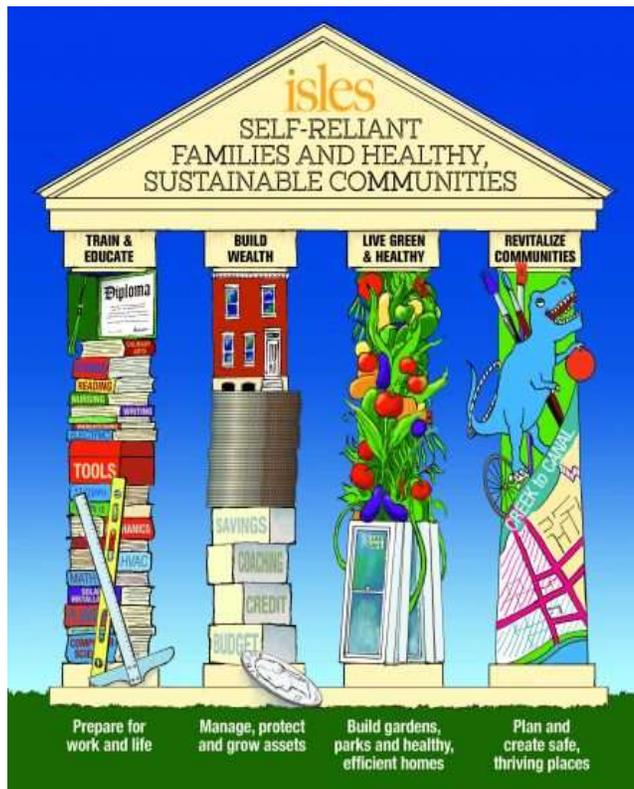
Sustainable Jersey

November 17, 2021

Elyse Pivnick, MCP, Isles, Inc.



# Isles Mission



Founded in 1981, Isles, Inc. is a community development and environmental organization based in Trenton, New Jersey.

With a mission to foster self-reliant families and healthy, sustainable communities, we design and develop effective services that support this mission and share what we learn with others who can make a difference.

## NYT Quote of the Day

“If you were going to put something in a population to keep them down for generations to come, it would be lead.”

(NYT January 30, 2016)

Dr. Mona Hanna-Attisha, of Flint MI, who has studied lead poisoning and the effects of lead exposure, for which there is no cure.



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# Lead, Race and Inequality

Lead toxicity ...is a pathway through which racial inequality literally gets into the body.

Dr. Robert Sampson, Harvard Researcher. 2016  
[https://scholar.harvard.edu/files/alixwinter/files/sampson\\_winter\\_2016.pdf](https://scholar.harvard.edu/files/alixwinter/files/sampson_winter_2016.pdf)



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## Legacy of Lead Paint



Robs a child of their potential in life

# Dangers of Lead Exposure

- Lead poisoning remains the **#1 environmental threat** to the health of America's children (learning problems, hearing, behavior)
- Adult impacts: High blood pressure, joint and muscle pain, kidney and heart disease, memory and concentration, headaches, pain, Mood disorders, reduced sperm count and abnormal sperm, miscarriage, stillbirth or premature birth in pregnant women
- Lead is so toxic that it is unsafe at any level.



Toxic

# Lead Exposure is Cumulative

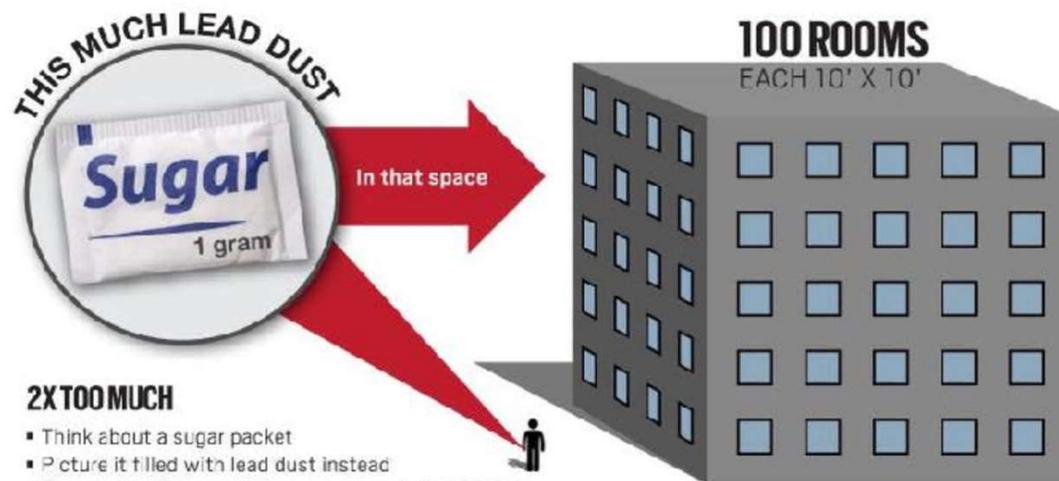
It typically comes from these main sources



shutterstock.com - 153405315

## HOW MUCH LEAD IS DANGEROUS?

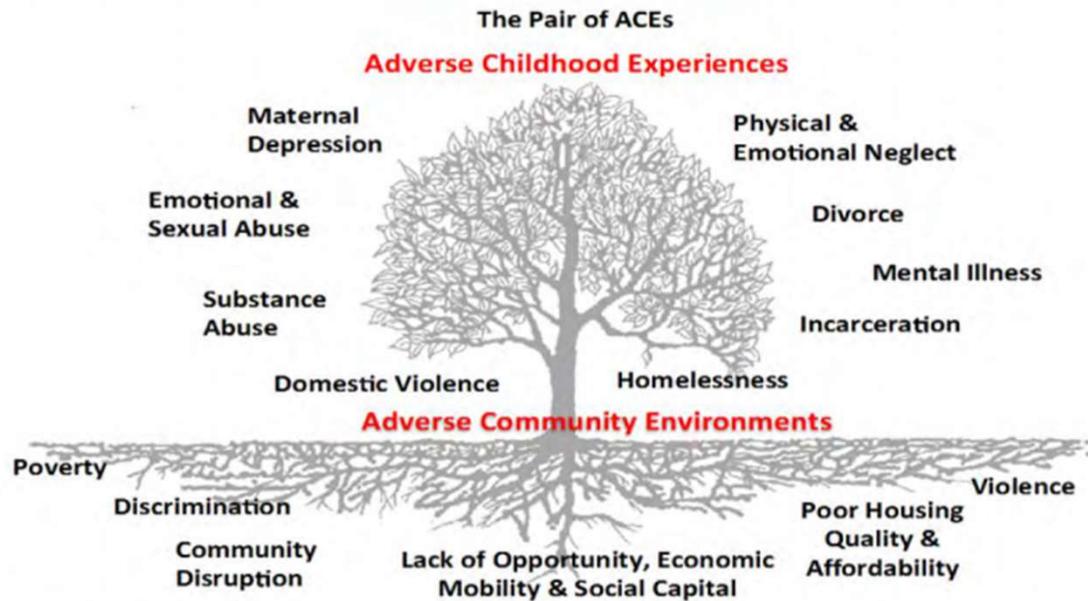
Even low levels of lead exposure can damage the nervous system, and high levels of exposure can lead to coma or death. The Centers for Disease Control and Prevention say there is no safe blood lead level in children. Paint containing lead can deteriorate or chip, leaving traces of lead dust at dangerous levels.



### 2X TOO MUCH

- Think about a sugar packet
- Picture it filled with lead dust instead
- Spread that little packet equally through 100 10x10 rooms
- That amount of lead dust in each room would still be two times higher than the federal hazard level.

# Adverse Childhood Experiences Adverse Community Environments



Ellis, W., Dietz, W. (2017) A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience (BCR) Model. *Academic Pediatrics*. 17 (2017) pp. S86-S93. DOI information: 10.1016/j.acap.2016.12.011

# Important to Know

- About **80%** of NJ housing was built before 1978—the year lead was removed from new house paint
- Nearly **50% of all U.S. children tested** (2018-2020) had detectable lead in their bodies. ---- research tracked more than 1.1 million children under the age of 6 years. (JAMA Pediatrics 2021)
- 75% of NJ children with high lead levels were poisoned by lead paint (NJ DOH 2021)
- **In 2019, about 4,000 children in New Jersey** had lead level of 5  $\mu\text{g}/\text{dL}$  or greater for the first time
- Disproportionate impact: Nationally, **36% of inner-city b** suburban white children
- **Forgotten in child development** and education reform



**My Brothers Keeper**

# Lead Poisoning & School Performance

- Compromised long-term memory---for example, a student can't recall multiplication tables from one day to next
- Reduced auditory processing makes it difficult, for example, to hear the difference between "s" and "f" impeding the ability to read
- Inability to control behavior
- Inability to learn no matter how hard a child tries
- Disruption in classrooms by children frustrated by their failure to learn difficult for *other* children to learn.
- Lower test scores for individuals and entire school districts that have a disproportionate number of children with lead poisoning
- Disproportionate number of low-income males incarcerated, unemployed and aimless



# School Suspensions, Reading, Juvenile Detention, Poverty

- FLINT: Suspension rates increased from 2.5% (before Flint water change) to 13.56% (after water exposure)
- FLINT: Delays in reading: 40% proficient *before* water change; reduced to 10% *after* water change.
- RI: Children with EBL 7X more likely to be suspended from school
- RI: Suspended children were also 10X more likely to end up in juvenile detention.
- RI: Relationship between lead and suspensions was much stronger for kids who received free lunches suggesting its interconnection with poverty, relates to housing

Currie and Aizer, 2017; Kristen Totten, MI ACLU



# Context for Sustainable NJ Actions to Reduce Exposure to Lead

- New Jersey **NEW Lead Safe Certificate Law**
- All landlords will be required to assess their rental units for hazardous lead and correct the hazards before entering into a rental agreement with tenants.
- Implementation July 2022.





## Do

- By taking lead out of paint and gasoline, we have removed about 90% of lead from children's bodies.
- It's the last 10%, we have not addressed.
- WHY: Lead is in communities without much clout--- low income and underlying racism. People of color disproportionately live in the nation's worst housing.
- Research shows the power of public health policies to reduce lead poisoning
- Communication and collaborations

# Sustainable Jersey Can Help Prevent Lead Poisoning NEW ACTION ENCOURAGES HOUSING CODE ENFORCEMENT



## Homes Maintenance Checklist

This checklist was developed for the National Center for Healthy Housing (NCHH) as a tool for healthy homes. A healthy home is one that is maintained, and rehabilitated in a manner to promote good occupant health.

In a healthy home, occupants should keep it clean, well-ventilated, free from contaminants, well-maintained, and thermally controlled.

Good home maintenance can act to reduce allergens, prevent illness, and prevent accidental injuries. This checklist provides basic guidelines; items may need to be checked more often depending on local conditions and manufacturer recommendations.

Developed by Terry Brennan and Ellen Tohn, technical advisors to NCHH. Revised by NCHH staff, May 2018.

	Spring	Fall	Annual	As Needed	Pro Needed?
<b>EXTERIOR</b>					
Keep away from house	●				
Trimming trees, shrubs, or sharp objects	●	●			
Fence is intact	●	●			
Check for rodents, bats, roaches, or other pests	●	●			
Check hoses and pipes	●	●			
Check for leaks and check for drainage	●	●			
Check downspouts	●	●			

	Spring	Fall	Annual	As Needed	Pro Needed?
<b>UNDER CRAWLSPACE</b>					
Check for rodents, pests, or musty odor	●	●			

	Spring	Fall	Annual	As Needed	Pro Needed?
<b>EXTERIOR ROOF, WALLS, AND WINDOWS</b>					
Ensure that the shingles are in good condition	●				
Inspect the chimney valley, plumbing vent, and skylight flashing for damage or leaks	●				
Inspect the chimney and clean if needed		●			
Ensure that gutters discharge water away from building	●				
Inspect the attic vents		●			
Inspect attic for signs of roof leaks	●				
Inspect for icicles and ice dams				●	
Look for peeling paint	●				
Look for signs of leaks where deck attaches to house	●				
Check below windows and doors that the flashing is intact	●				
Remove and replace any cracked or broken glass		●			
Look for signs of leaks at window and door	●				

- HEALTHY HOMES TRAINING FOR HOUSING AND HEALTH INSPECTORS
- Empower them to inspect whenever they are in a home
- Leave behind a healthy homes check list



# Create a Culture of Health for Lead Poisoning Prevention

- Even better?
- Encourage lead and healthy homes training for Mayors, city council members, school superintendents, school boards, child study teams, community health workers, faith and civic leaders, state and local elected officials, parents, and more.





## CREATE A LEAD AND HEALTHY HOMES ADVISORY COMMITTEE

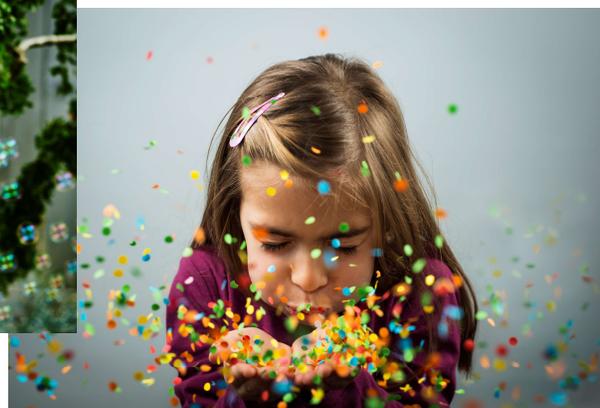
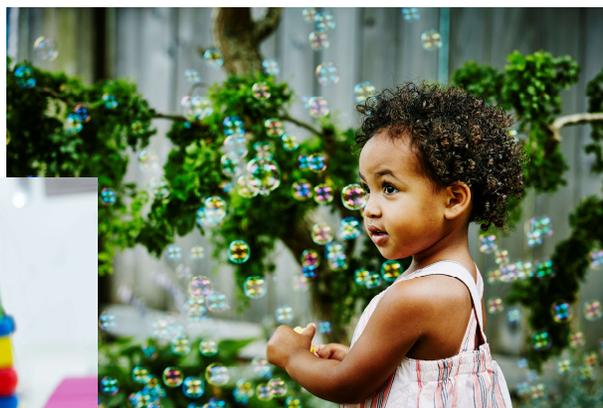
Improve coordination of lead and healthy homes efforts:

Code enforcement, CHWs, data, Section 8, Medicaid, education, legislation, energy efficiency

# Call to Action: EQUITY

All children should proceed through life unburdened by lead.

Support new Sustainable Jersey actions.



# Contact Us

Elyse Pivnick: Senior Director of  
Environmental Health

(609) 341-4723, [epivnick@isles.org](mailto:epivnick@isles.org)

## Find Us Online



[www.isles.org](http://www.isles.org) and [www.isles.org/lppp](http://www.isles.org/lppp)



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# LEAD & HEALTHY HOMES

## Municipal Health Perspective

Christopher Hellwig, MPH MCHES  
Health Officer  
Township of Hamilton Division of Health

# NEW *SUSTAINABLE JERSEY* ACTIONS

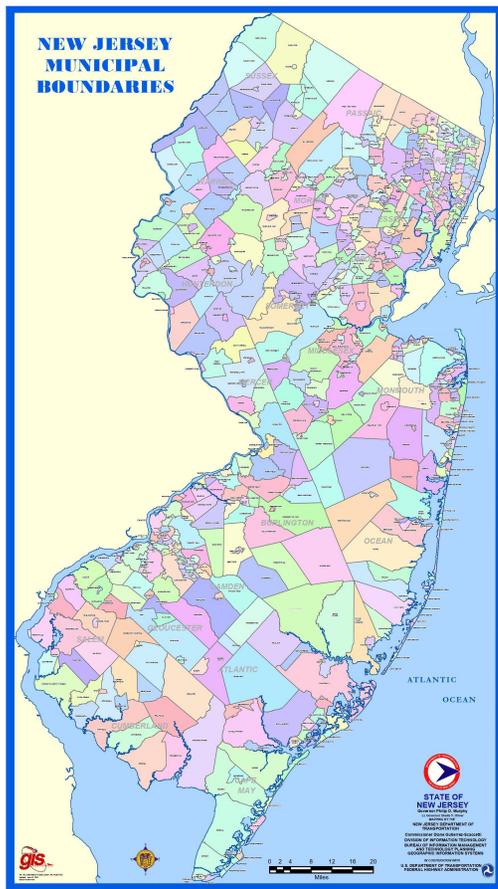
- Today I'll be discussing:
  - Lead Blood Screening Campaign
  - Health Homes Inspection & Training

Source:

[www.sustainablejersey.com/actions/](http://www.sustainablejersey.com/actions/)

↑ BACK TO TOP	EXPAND ALL	COLLAPSE ALL
<b>Lead &amp; Healthy Homes</b>		
<b>Comprehensive Lead Strategy</b>		
10 Points		
• THIS ACTION HAS VARIABLE POINTS: 10, 15 • THIS ACTION COUNTS TOWARDS A GOLD STAR		
<b>Healthy Homes Inspection &amp; Training</b>		
5 Points		
• THIS ACTION HAS VARIABLE POINTS: 5 — 30 • THIS ACTION COUNTS TOWARDS A GOLD STAR		
<b>Lead and Housing Hazard Data-Sharing</b>		
10 Points		
• THIS ACTION COUNTS TOWARDS A GOLD STAR		
<b>Lead Blood Screening Campaign</b>		
5 Points		
• THIS ACTION HAS VARIABLE POINTS: 5, 10, 15, 20 • THIS ACTION COUNTS TOWARDS A GOLD STAR		
<b>Private Well Outreach and Testing</b>		
10 Points		
• THIS ACTION HAS VARIABLE POINTS: 10, 15, 20, 25 • THIS ACTION COUNTS TOWARDS A GOLD STAR		
<b>Removing Lead in Drinking Water</b>		

# PUBLIC HEALTH IN NEW JERSEY



- 104 Local Health Depts. (LHDs) serving 565 municipalities
- Every municipality in NJ has a Local Board of Health
  - Usually town council unless otherwise specified
- Local Boards of Health/Local Health Departments are responsible for:
  - Emergency response and disaster resiliency
  - Communicable disease investigation and outbreak response
  - Environmental health inspections and investigations
  - Chronic disease prevention and health promotion
- Directory of LHDs
  - <https://nj.gov/health/lh/documents/LocalHealthDirectory.pdf>

# ROLE OF THE LHD

- Authority given under
  - NJAC 8:51 – Childhood Elevated Blood Lead Levels (EBLLs)
  - NJAC 8:51A – Screening of Children for EBLLs
- 3 main areas of Local Health Department (LHD) involvement:
  - Blood lead level screening of children under the age of 6
  - Nursing case management of children with EBLLs
  - Environmental interventions

*Note:*

Your day-to-day LHD might not be the LHD who provides lead coverage!

# SOURCES OF LEAD

Lead can be found throughout a child's environment.



Homes built before 1978 (when lead-based paints were banned) probably contain lead-based paint.



When the paint peels and cracks, it makes lead dust. Children can be poisoned when they swallow or breathe in lead dust.



Certain water pipes may contain lead.



Lead can be found in some products such as toys and toy jewelry.



Lead is sometimes in candies imported from other countries or traditional home remedies.



Certain jobs and hobbies involve working with lead-based products, like stain glass work, and may cause parents to bring lead into the home.

Lead-based paint is the main source of EBLs in NJ, but there are plenty of other sources.

# EFFECTS OF LEAD

No safe level of lead exposure in children has been identified.

- Exposure to lead can seriously harm a child's health and cause:
  - Damage to the brain and nervous system
  - Slowed growth and development
  - Learning and behavior problems
  - Hearing and speech problems
- Which can cause:
  - Lower IQ
  - Decreased ability to pay attention
  - Underperformance in school



The good news is childhood lead poisoning is 100% preventable

# LEAD BLOOD SCREENING CAMPAIGN

The purpose of this action is to prevent lead exposure and protect children by conducting a coordinated outreach campaign that will increase the percentage of children living in the municipality who have completed the state-mandated blood lead level (BLL) screening tests. This is a variable point action. (5-20 points)

# SCREENING

- Per NJAC 8:51A...
  - All children at ages 12 and 24 months should be screened for lead
  - Additionally, all children aged 6 months to 72 months should have a risk assessment performed to determine lead exposure risk:
    - Whether the child resides in, or frequently visits, a house built before 1960 in which the paint is peeling, chipping, or otherwise deteriorated, or where renovation work has recently been performed that involved the removal or disturbance of paint
    - Whether the child resides with an adult who is engaged in an occupation or hobby where lead or material containing lead is used
- Healthcare facilities serving children under 6 or LHDs may perform screening

# NURSING CASE MANAGEMENT

- The LHD initiates nursing case management when a child has a confirmed BLL of  $5\mu\text{g/dL}$ 
  - The Public Health Nurse...
    - Conducts a home visit
    - Provides education and counseling
    - Coordinates care with the child's PCP
    - Screens siblings or other household children
    - If required, completes Lead Hazard Assessment Questionnaire with Lead Inspector
    - Coordinates relocation, if needed
    - Assists with referrals
    - Continues to case manage the child until discharge

# SJ ACTION STEPS

- **Tier 1:** Sponsor free BLL screenings, or proactively collaborate in holding screenings.
- **Tier 2:** Identify high-risk populations and the barriers they face to accessing BLL screenings. Implement targeted outreach to overcome those barriers and improve access directed at one or more of these groups or neighborhoods.
- **Tier 3:** Conduct outreach to inform and motivate pediatricians and other healthcare providers to increase the percentage of children screened.
- **Tier 4:** Calculate and prominently report the municipal BLL screening rate(s) to track and publicize municipal performance. (pop. >20,000)

# HEALTHY HOMES INSPECTION & TRAINING

This action awards points to municipalities for implementing training and home inspection protocols that promote a culture and practice of *healthy homes and lead poisoning prevention* across municipal government, including all departments and externally contracted services. This variable point action has three levels. Each may be completed separately. (5-30 points)

# ENVIRONMENTAL INTERVENTIONS

- The LHD initiates an environmental intervention when a child has a confirmed BLL of  $10\mu\text{g}/\text{dL}$  or greater; or when the child has two confirmed BLLs of  $5\text{-}9\mu\text{g}/\text{dL}$  between 1-4 months apart.
- Environmental interventions are performed by a Lead Inspector/Risk Assessor
  - Onsite visual inspection of the residence
  - Use of a lead paint analyzer (XRF) or consumer products analyzer to identify potential sources of lead or lead dust
  - Education
  - Coordinates lead remediation/abatement with property owner and contractors

Also helps identify other potentially hazardous conditions

# SJ ACTION STEPS

- **Tier 1:** requires healthy homes training for *housing and health* inspectors. The municipality may complete one or both of two options:
  - Option 1 - Institute a municipal policy that all housing and health inspectors employed or contracted by the municipality receive training on the principles of a healthy home, with emphasis on reducing childhood lead exposure.
  - Option 2 - Train at least two inspectors and one or more municipal officers, appointees or staff on the principles of a healthy home, with emphasis on reducing childhood lead exposure.
- **Tier 2:** requires the implementation of an inspection protocol for the adoption of a healthy homes assessment as a routine part of home inspections.
- **Tier 3:** recognizes the successful implementation of voluntary programs to promote healthy homes. Municipalities may complete one or both of two options:
  - Option 1 - Voluntary healthy home evaluations
  - Option 2 - Voluntary testing of homes for hazards from lead

# HEALTHY HOMES

- According to the Green & Healthy Homes Initiative (GHHI) Nearly 6 million households live with moderate to severe housing hazards.
- These hazards increase the risk for illnesses, chronic health issues, and injuries.

## Hazards include:

Asbestos

Carbon Monoxide

Fire

Mold & Moisture

Pests

Radon

Tobacco Smoke

Volatile Organic Compounds

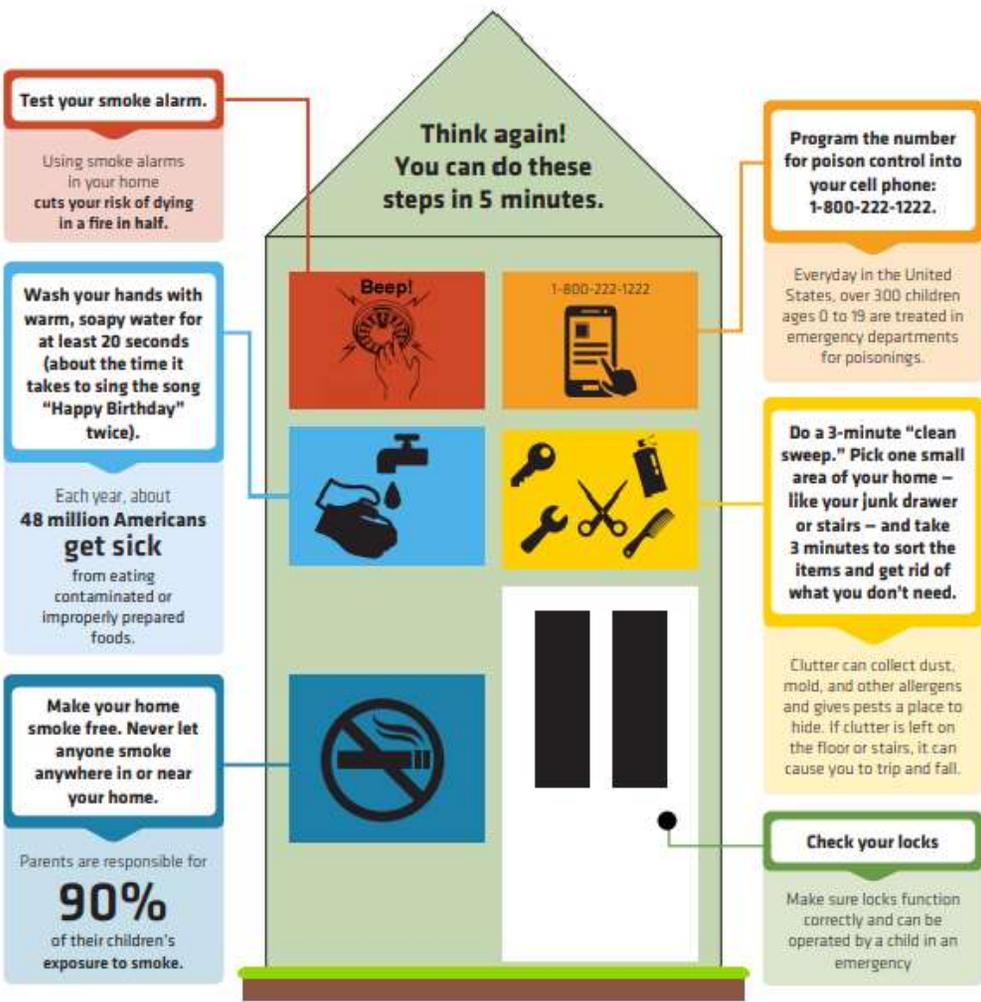
Household Injury

Lead

Asthma Triggers

# 5 Minutes to a Healthier Home

Think you don't have enough time to make your home a healthier and safer place?



## Have 5 more minutes?

Log on to [www.hud.gov/healthyhomes](http://www.hud.gov/healthyhomes) for information on topics like lead, mold, radon, asbestos, pests, and more!



From The Surgeon General's Call to Action To Promote Healthy Homes

## A Healthy Home Checklist

### Bedrooms, Living Rooms, and Family Rooms

- Install smoke and carbon monoxide alarms
- Do not smoke or allow anyone else to smoke in the home.
- If your home was built before 1978:
  - Test your home for lead paint.
  - Fix peeling or chipping paint using lead-safe work practices.
  - Use safe work practices when painting, remodeling, and renovating to prevent spreading lead dust.
- Keep floors clear of electrical cords and clutter.

### Kitchens

- Never use the stove or oven to heat the house.
- Use a range hood fan or other kitchen exhaust fan that vents outside.
- Install smoke and carbon monoxide alarms.
- Use safe cleaning and pest control products.
- Stop cockroaches, ants, and mice without pesticides:
  - Keep them out – seal openings to the outside and between rooms.
  - Starve them – put away food, clean up, cover the trash and garbage.
  - Deny them water – fix leaks and wipe up spilled water.
  - When necessary, use closed baits, traps, and gels.
  - Never use bug bombs.

### Bathrooms

- Install grab bars next to the bathtub and shower.
- Use mats with nonslip rubber backs on bathroom floors.
- Clean up moisture and mold safely.
- Use a bathroom exhaust fan that vents outside.

### Attics

- Check for water leaks from the roof.
- Ensure proper ventilation to prevent moisture that can promote mold growth.
- Seal gaps around roofing and attic openings to keep rodents and insects out.
- Clean up clutter to deny rodents and insects places to nest.

### Stairways and Halls

- Fix loose or uneven steps and rails.
- Attach stairway carpet firmly to every step—or remove carpet and attach nonslip rubber stair treads.
- Keep stairs free of clutter.
- Install handrails on both sides of the stairs.
- Keep a working light bulb in overhead lights in the hall and the stairs.

Everyone can have a healthy home. This checklist and accompanying illustration show some key action steps to take in each room and area of the home.

### Basement, Crawl Space, Utility and Laundry Areas

- Set hot water heater at 120°F to prevent burns.
- Change furnace/AC filter regularly.
- Have gas appliances and furnaces checked yearly to make sure they don't release extra carbon monoxide.
- Make sure the clothes dryer vents outside.
- Test for radon. If there's a high level, hire a specialist to eliminate the hazard.

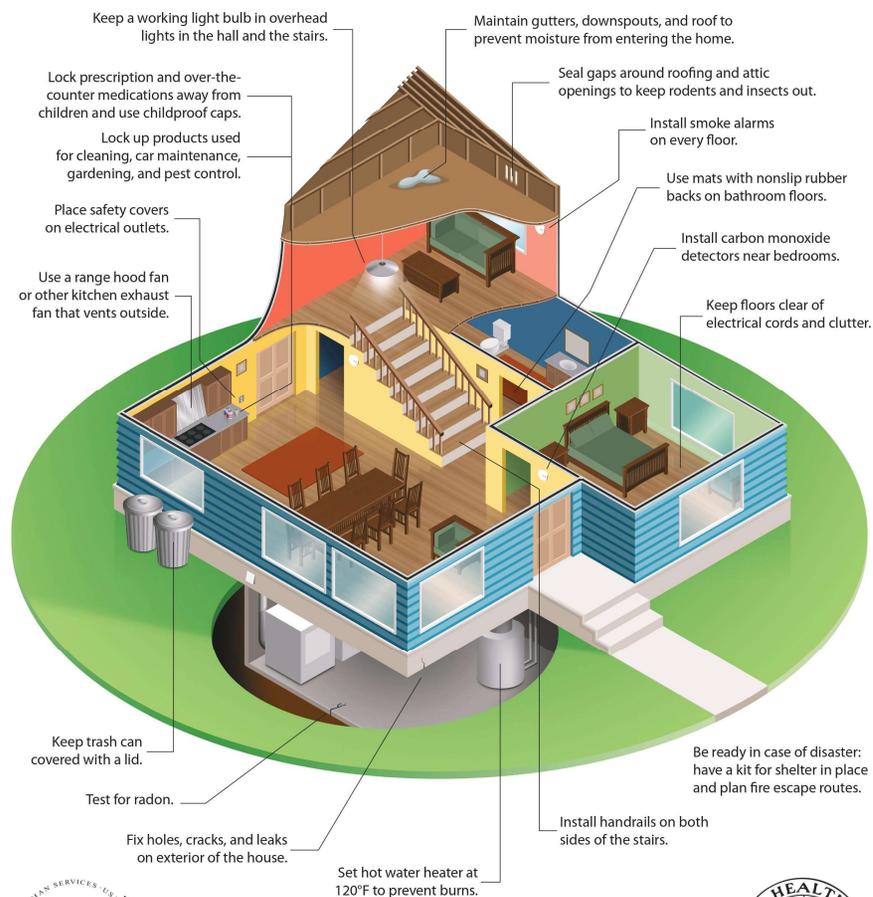
### Outer Parts of House and Yard

- Keep pests away:
  - Fix holes, cracks, and leaks on exterior of the house.
  - Eliminate standing water and food sources.
  - Keep trash can covered with a lid.
- Remove shoes before entering the house to keep dirt containing lead and other toxins outside.
- Maintain gutters, downspouts, and roof to prevent moisture from entering the home.
- Use safe work practices when painting, remodeling, or renovating a home built before 1978.
- If you have a septic tank or private well, properly maintain it to prevent illness.
- Be ready in case of disaster: have a kit for shelter in place and plan fire escape routes.

### Special steps to protect children:

- Make sure cribs, playpens, and play equipment are safe.
- Keep cribs free of soft objects or loose bedding.
- Use cordless blinds and shades, or tie the cords out of reach of children.
- Place infants on their back to sleep.
- Place safety covers on electrical outlets.
- Lock prescription and over-the-counter medications away from children and use childproof caps.
- Use stair gates at the top and bottom of stairs.
- Lock up products used for cleaning, car maintenance, gardening, and pest control.
- If you have a swimming pool, make sure you have proper fencing and gates around the pool.
- Complete a playground safety checklist if you have playground equipment in your yard.
- If a firearm is kept in the home, it should be stored unloaded and locked in a secure container— inaccessible to children.

## A Healthy Home Checklist



For more information, visit <http://www.cdc.gov/healthyhomes> or <http://www.surgeongeneral.gov>.



# CASE STUDY

- LHD staff conducted an environmental intervention in response to an EBLL.
  - Multi-unit rental property
  - Significant mold and water damage in the fully enclosed front porch and water damage in the ceiling of the Living Room and Bathroom on the first floor.



# COMMUNITY RESOURCES

- No one has to go it alone – know who are your local partners and what resources are available.
- Funding is available to assist home/property owners
- Grants are available to assist agencies



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# QUESTIONS?

Christopher Hellwig

Township of Hamilton Division of Health

[chellwig@hamiltonnj.com](mailto:chellwig@hamiltonnj.com)

Office: 609-890-3824



# New Actions to Reduce Exposure to Lead & Promote Healthy Homes

*Generously supported by the NJ Department of Health, Jersey City Department of Health & Human Services, and the Robert Wood Johnson Foundation*





## **A Municipal Guide to a Lead-Safe Community**





# Lead & Healthy Homes Actions

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- **Lead Education & Outreach Programs (updated)**
- ✓ **Lead Blood Screening Campaign**
- ✓ **Healthy Homes Inspection & Training**
- **Lead and Housing Hazards Data-Sharing**
- **Comprehensive Lead Strategy**
- Removing Lead in Drinking Water
- Private Well Outreach and Testing
- Tobacco-Free Community



*How many work for/live in municipality that's...*

- *Registered in the Sustainable Jersey program?*
- *Don't know (not familiar w/program)*
- *Sustainable Jersey **Bronze** certified?*
- *Sustainable Jersey **Silver** certified?*



# Lead Education and Outreach Programs

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- What's new?
- 5 points for E &O on top lead pathways
- + 5 for targeting specific high-risk group or neighborhood
- + 5 points for second high-risk group
- *Who* is high-risk for lead &/or underserved?
- What are some ways to “target” those groups?



# Lead & Housing Hazards Data-sharing

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## *Why data & data-sharing??*

- to identify & define issues - can't solve a problem you can't define!
- to test effectiveness of interventions
- better cross-departmental municipal data sharing
- linking information by property allows identification of *which* properties and *which* landlords enable or hinder healthy, safe housing
- Identify & solve data-sharing barriers to enable proactive interventions



# Lead & Housing Hazards Data-sharing

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- Policy on interdepartmental (housing, health, code enforcement) sharing of data related to lead hazards in buildings
- Regular meetings to review housing hazards data
- Report *property-linked* data in accessible database or spreadsheet
- Interdepartmental group annually presents summary of data, trends & implications to governing body



# What data to include?

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- **Required data:**
  - building ownership and tax status
  - lead & other housing inspection dates
  - findings of lead contamination or code violations
  - complaints or summons
  - certificates of occupancy/habitability
- **Beneficial additional data:**
  - Compliance, lead-safe clearance



# Comprehensive Lead Strategy

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1. Form Lead-safe Action team (internal & external)
2. Collect & analyze data
  - Qualitative data, based on experience is OK
  - Most important pathways of lead exposure
  - What populations/areas most vulnerable, hotspots
  - Challenges, coordination issues
3. Develop Lead Strategy
  - Select SJ actions & other municipal interventions
  - Use evidence to *focus resources on most at-risk groups/areas*
  - Timeline
  - Responsible parties



# Comprehensive Lead Strategy

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## 4. Present strategy

- To public for input
- To governing body & local board of health for input & endorsement

## 5. Lead-safe Action team meets 2x/year

- Monitors & troubleshoots strategy
- Adapts strategy as needed
- Report annually to governing body &/or LBOH



## Extra points:

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- Expand >> quantitative & geographic (spatial) data
- Indicators of lead exposure risk at census tract or building/address level
  - Age of structures, children < six, poverty
  - Racial & ethnic composition, English proficiency
  - Link to lead & housing hazards database building-level data
- Use data to identify & *prioritize* high-risk areas & to *track* outcomes

# Sustainable Jersey Supporters & Sponsors

## Program Underwriters



## Grants Program



## Corporate Sponsors

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### GOLD



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# Questions or Comments?

Melanie McDermott  
mcdermom@tcnj.edu

