NBS Screening for Heavy Metals

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center for rare disease therapy





Disclosures

Research funding

- NIH
- Ultragenyx
- Biomarin
- Takeda
- Aeglea
- Alexion
- Moderna
- Mereo
- Stealth
- Kaleido
- Synlogic
- LogicBio
- Arcturus
- Hemoshear

Consulting

- Biomarin
- LogicBio
- Sangamo
- Orphan Labs
- Moderna
- Applied Therapeutics
- Homology
- Agios
- Sanofi
- Axcella Health

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The environment and newborns



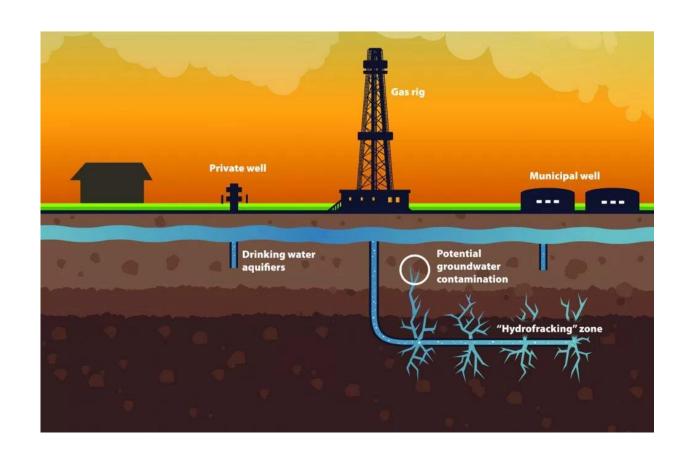






Fracking facts

- PA wells increased from 27 in 2007 to 2073 in 2011
- Nationwide
 - 38 Million acres of federal land leased for fracking
 - > 10,000 wells
- Unexpected consequences (earthquakes!)
- Methane escape
- Other toxic air emissions



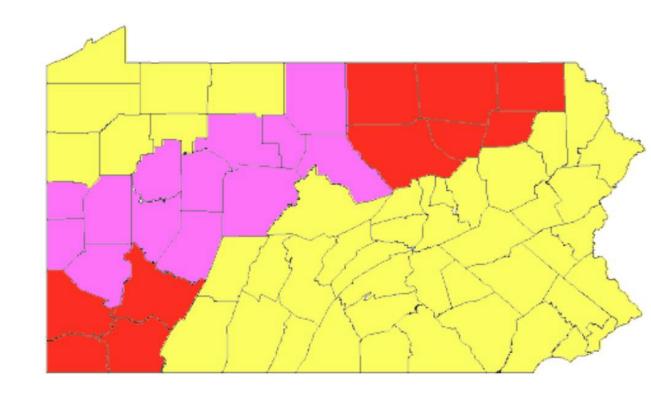






EPA study: general conclusions

- Hydraulic fracturing can impact drinking water resources under some circumstances
- Examples of impacts were identified for all stages of the hydraulic fracturing water cycle
- Impacts can range in frequency and severity, depending on the combination of hydraulic fracturing activities and local or regional scale factors
- Significant data gaps and uncertainties prevent quantifying the number or frequency of impacts across the country







EPA study: fracking fluid

- Some chemicals in the hydraulic fracturing water cycle are known to be hazardous to human health
- Of the 1,606 chemicals identified by EPA, 173 had chronic oral toxicity values
- Data insufficient to determine which chemicals have the greatest potential to impact drinking water resources and human health
- Site-specific data on chemicals and chemical concentrations would be needed to conduct human health risk assessments









Lead exposure

- Most from non-water sources
 - Ingestion of lead containing paint chips
 - Inhalation of lead containing dust
 - Ingestion of lead contaminated soil
- Water exposure
 - 10-20% of lead exposure
 - "Lead-free" plumbing can contain up to 8% lead
 - Older homes at greater risk

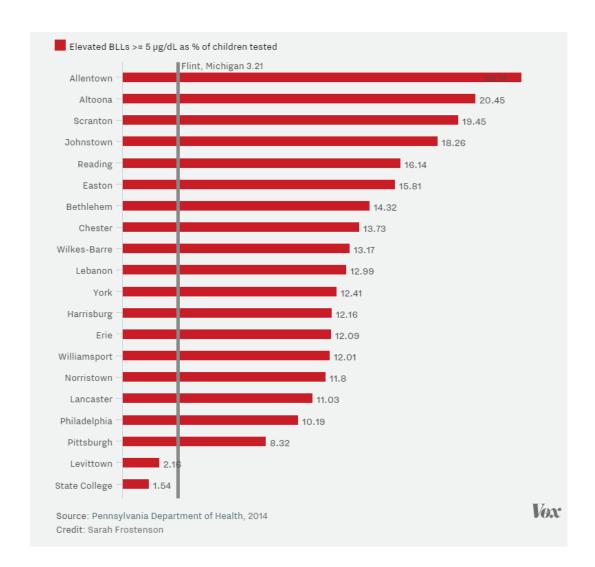








Pediatric lead levels in PA cities



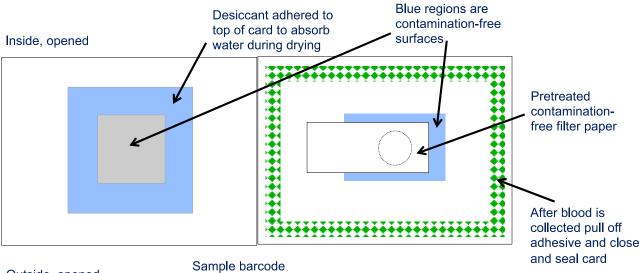


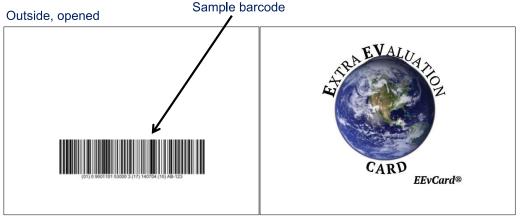




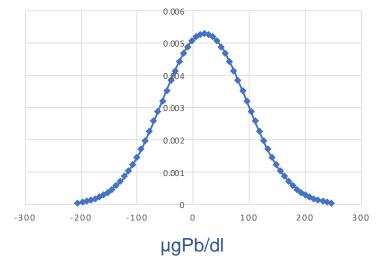
Newborn screening for heavy metals

100 Baby pilot project





Note: before and after blood collection the card is sealed inside a plastic bag to protect desiccant against exposure to moisture











Logic model

LOGIC MODEL "NEWBORN SCREENING FOR HEAVY METALS"

· Health research investigator expertise Build on prior 100-baby pilot to create 12,000baby, one-year study including urban and rural Public health expertise and county authority populations · Newborn screening expertise at hospital and Secure (Pitt) Institutional Review Board approval state levels of study protocol and materials

Inputs/Resources

· Evidence-based effective blood specimen

Approved (CLIA) clinical lab with high-throughput

· Geographic data on prior lead exposure tests for

· Structures for creation and certification of

· Expertise in exposure data collection and

• Expertise in and technology for data statistical

analysis, illustration (graphing), and reporting

research involving human subjects

· Access to a large population

collection and processing method

specimen processing capacity

the population

- · Create patient family education material
- · Create staff education materials; train labor and

Activities/Processes

- Set up database and data collection process
- Collect and process specimens from births at **UPMC Magee and a Westmoreland County** partnership hospital for 12 months
- All specimens processed for levels of 6 metals: cadmium, lead (3 isotopes), arsenic, and mercury
- Correlate babies' levels with mothers' geographic locations (e.g., home Census block) to locate potential sources to be remediated
- · Conduct statistical analyses of all data collected

- Characterization of heavy metal profiles in a newborn cohort
- Referral to clinical intervention for any babies whose levels are significantly elevated

Proposed Outputs

- Robust population-level data for public health and environmental health analysis
- Publication in a peer-reviewed scientific journal
- At least one story about the results in a regional news outlet, e.g., Post-Gazette, PublicSource.org
- Data of quality and quantity to enable an NIH grant(s) to fund state-wide and national screening

 Improved prevention of heavy metal health damage in screened children

Proposed Outcomes

- Identification and prioritization of exposure sources to guide government and industry environmental clean-up and pollution prevention
- Identification of any previously unknown exposure sources, enabling health professionals and parents to protect the children they care for
- Beyond the 6 tested isotopes, identified geographic clusters will point to potential additional toxins and exposures
- New hypotheses and population data enables collaborators (Children's, ACHD, Pitt) to pursue further research funding from NIH, HRSA, etc.
- Continued government, NPO, corporate priority in our region for improving the quality of water, air, and soil
- Rationale for state-wide implementation of newborn screening (~94 hospitals)
- National presentations, including to HRSA Advisory Committee in Heritable Disorders in Newborns (committee that curates national recommended uniform screening panel)

Study Team

- Genetics
- Magee Nursery
- ACDOH
- EnMed
- **Environmental Med**

Toxins

- Lead
- Cadmium
- Arsenic
- Mercury

List of Research, Articles, or Other Supporting Data Informing the Logic Model:

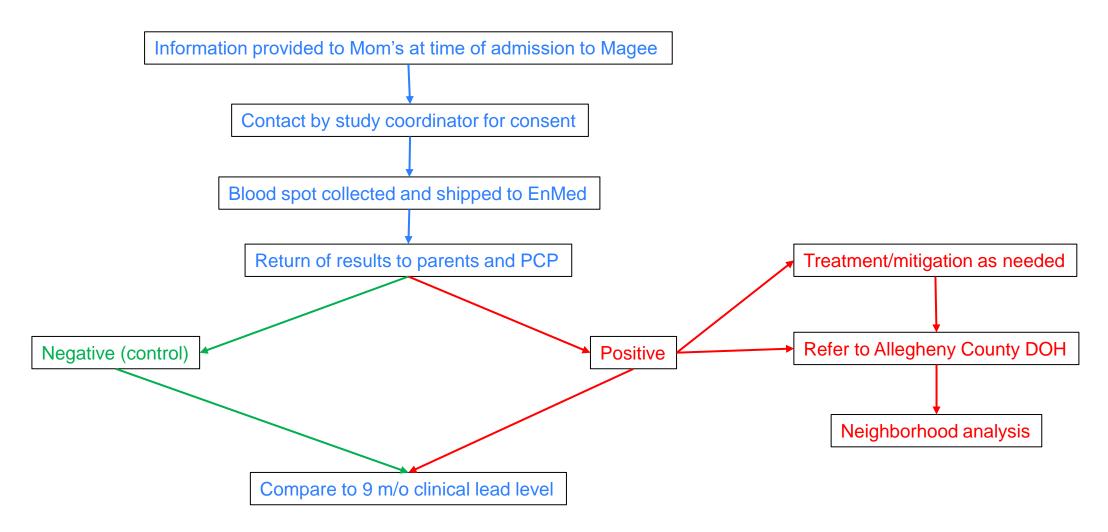
Funk et al., J Environ Anal Toxicol 2015 dx.doi.org/10.4172/2161-0525.S7-0002







Project design









Funding

- Caplan Foundation (\$50K)
- Heinz Family Foundation (\$25K)
- RKMF (\$230K request)
- NIH?









Thank you!









ACHD Childhood Lead Data Updates

LuAnn Brink, PhD, MPH Chief Epidemiologist

December 2, 2021





Childhood Exposure to Lead

PAINT CHIPS/DUST







JEWELRY





PIPES



- October 28, 2021
- NHANES >97.5 percentile of blood lead concentration for US children ages 1-5 years
 - New level = 3.5 ug/dL
 - 2020 data +194 children in Allegheny County with confirmed lead levels 3.5-5



Help For Dealing with Lead Hazards

- ACHD Housing and Community Environment Program
 - phone consultations for lead hazards
 - educational literature
 - performs lead risk assessments when a child has an elevated blood lead level at or above 5 ug/dl
 - Call: (412) 350-4046
- What happens during a Lead Risk Assessment (LRA)
 - Identify lead hazards in the child's home
 - XRF (X-Ray Fluorescence) machine identifies components painted with lead-based paint
 - Environmental sampling includes water, dust, and soil. These samples are sent to an approved lab for analysis.



Lead testing and surveillance

- Lead test data reported by providers and laboratories through Pennsylvania National Electronic Disease Surveillance System (PA NEDSS)
- ACHD monitors trends testing and elevated blood lead levels
- In January 2018, Allegheny County passed a Universal Testing mandate
 - Requires children have two blood lead levels twice before age 2
 - Universal testing for blood lead levels assures that children, families, and doctors will know if they are at risk for complications related to elevated lead levels and then receive information to reduce those levels
 - Universal testing helps the Health Department identify community patterns of childhood blood lead levels for intervention

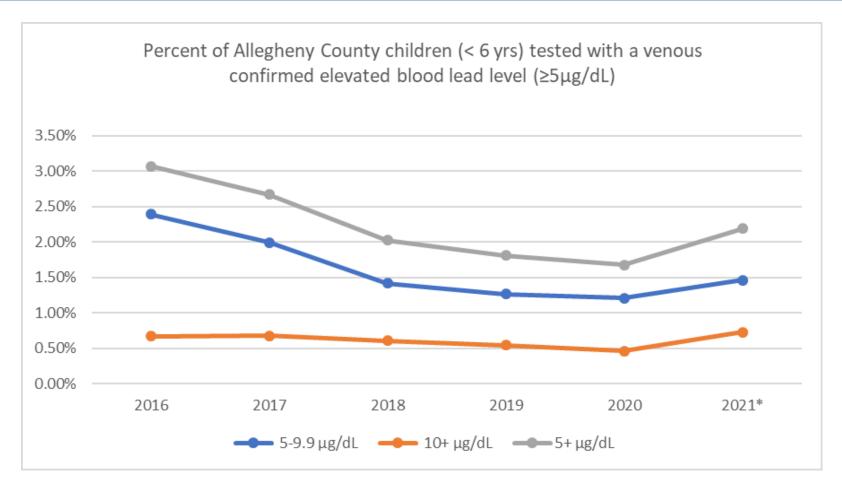


Elevated Blood Lead Levels (EBLL)

Allegheny County Children (< 6 years) Tested for Blood Lead with Venous Confirmations

Year	Children tested	5+ μg/dL		5-9.9 µg/dL		10+ μg/dL	
	(< 6 yrs) Confirmed		Confirmed		Confirmed		
2016	14,247	437	3.07%	341	2.39%	96	0.67%
2017	17,080	457	2.67%	341	1.99%	116	0.68%
2018	23,737	481	2.03%	337	1.42%	144	0.61%
2019	23,942	434	1.81%	303	1.27%	131	0.55%
2020	20,361	341	1.67%	246	1.21%	95	0.47%





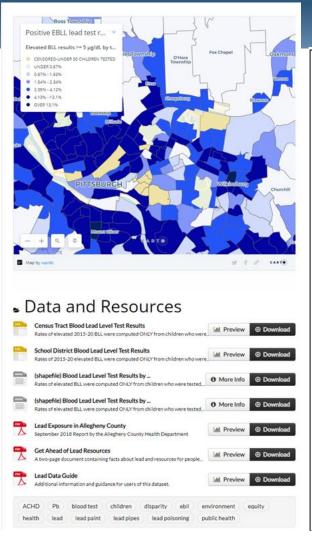


Census tract data available at

www.achd.net/lead

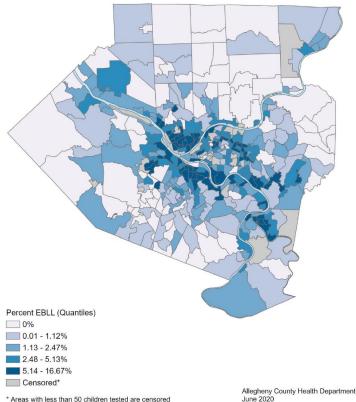
and at

www.WPRDC.org



Allegheny County Health Department

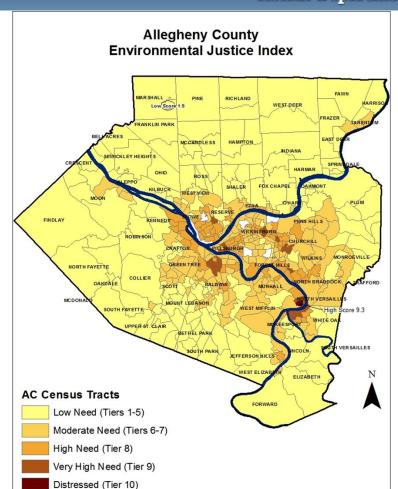
Percent of Children (< 6 yrs) Tested with a Confirmed Venous Elevated Lead Level ≥ 5 μg/dL, Allegheny County Census Tracts 2015-2019





Allegheny Environmental Justice

- Race
- Poverty
- Education
- Traffic
- Parks and greenspace
- PM2.5
- Diesel particulate matter
- Vacant properties





Environmental and Social Needs

- 371census tracts in Allegheny County
 - Percentage with EBLL significantly correlated with EJ
 - 2 Environmental Justice areas had low percentage EBLL
 - Areas with no EJ need all had low percentage EBLL

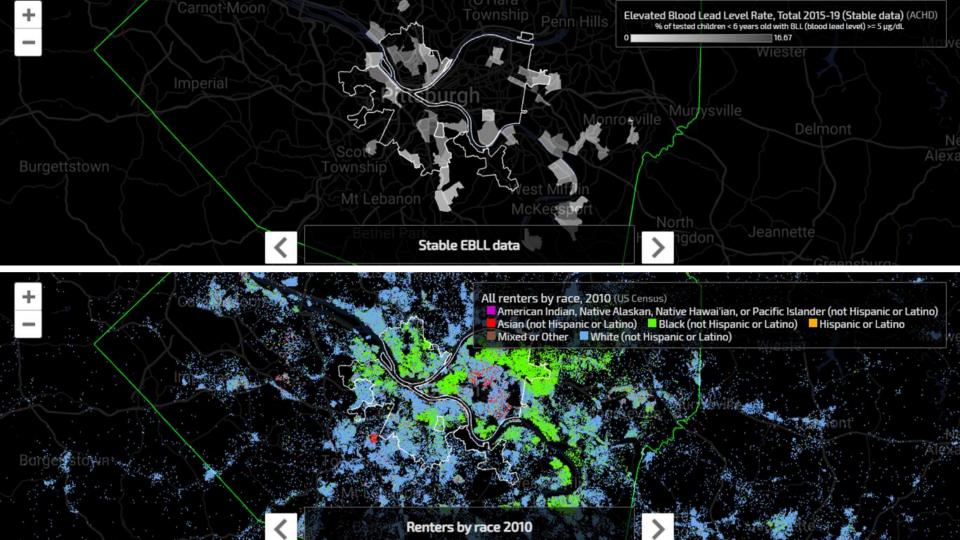
	Low EJ	Mod Low EJ	Mod EJ	Mod High EJ	High EJ Need
Low EBLL	43	15	10	7	2
Mod Low EBLL	22	25	18	6	0
Moderate EBLL	13	14	25	14	10
Mod High EBLL	1	11	15	21	25
High EBLL	0	4	12	24	34

Primary Prevention Strategies that Address Lead Disparities



Get the Lead Out, Pittsburgh

The Pittsburgh Study
Summit on Child Thriving and Environmental Justice
December 2, 2021





Lead in Allegheny County

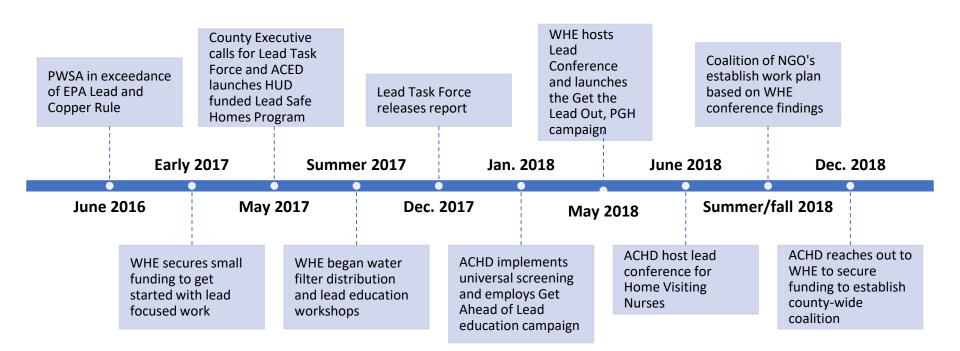
- 80% of homes in Allegheny County were built before 1978
- Significant population loss in Southwestern PA since 1969 (around 400,000)
- Home sellers are not required to test for lead, but buyers can request an inspection
- Landlords are not required to test for lead unless they or their tenant receives HUD funding
- 130 municipalities with unique codes and requirements
- 80 percent of Allegheny water systems have detectable levels of lead in their drinking water
 - State grant programs (Pennvest) to support replacement of lead service lines

Individual, Community and System Change are necessary to solve lead poisoning



Replacements

Properties





Engaging with landlords and the rental world

CHALLENGES

130 municipalities with autonomy – that's a lot!



City of Pittsburgh engagement



General lack of understanding regarding severity of lead exposure



Primary Prevention – get stakeholders to see prevention as a worthwhile investment



Using the HiAP strategy, develop and structure cross-sector relationships to create a collaborative and representative county-wide coalition – Lead Safe Allegheny.

- Allows for government participation.
- Provides inclusive space for medical professionals and others less likely to advocate.
- Establishes structure and function of coalition to prevent lead exposure.
- Adopted vision, mission, and guiding principles to inform goals and objectives.
- 4 standing committees Policy, Education and Outreach, Infrastructure, Data and Research



Coalition-Building - LSA Launched



Prior to the Coalition, the organizations working in this space were doing so with "traditional" partners and colleagues.

Now, we have a space where representatives from all sectors share information and resources, collaboration occurs and the HiAP approach is employed.

We have had the opportunity to bring in guest speakers and national, state and local partners, including governmental agencies, to provide information and resources.





We envision Allegheny County as a place where children and their families can live, learn, and grow in a leadsafe environment. This is why our coalition – comprised of individuals and organizations across sectors and across our county – works together to drive strategic initiatives, advocacy, and collaboration to protect our community from lead.

Here in Allegheny County, we face the impacts of aging, deteriorating infrastructure every day. Lead is commonly found in our homes and other spaces in paint, dust, soil, and water, so we are collectively committed to advancing primary prevention policies, identifying and remediating lead hazards, and protecting our children from the lifelong effects of exposure to lead.

PLEASE JOIN US FOR A LEAD SAFE ALLEGHENY



DATA

LEAD SAFE

ALLEGHENY

Uses data to identify high risk neighborhoods/populations and support coalition initiatives, improves data surveillance and reporting, depicts lead hazards through mapping and other technologies, and improves science communication with the community and health care system.

MEETINGS

Every other month, second Tuesday, 12:30 - 1:30 pm

☆ INFRASTRUCTURE

Promotes lead-safe practices among homeowners, renters, landlords, and contractors, and identifies opportunities for certification and education regarding lead-safe practices and regulations.

MEETINGS

Every other month, third Monday, 2:00 - 3:00 pm

EDUCATION AND OUTREACH

Establishes cohesive and action-inspiring messaging, identifies audiences of interest and develops tailored messaging for each, supports outreach initiatives and projects undertaken by the Coalition and other committees, and increases community awareness of lead hazards.

MEETINGS

Every other month, second Wednesday, 11:00 am - 12:30 pm

POLICY

Advances policy initiatives at the municipal, county, and state level that aim to address primary prevention of lead exposure.

MEETINGS

Every month, third Monday, 3:00 - 4:30 pm



Engaging with the City of Pittsburgh and other municipalities:								
Data Gathering	Policy Change	Capacity Building						
Continued outread	Continued outreach with community groups and service agencies :							
Lead e	Lead education, resources sharing, referrals to services							
Continue to build the coalition:								
Grassroots advo	Grassroots advocacy, engage with families, landlords, developers, realtors							
Identify financing opp	Identify financing opportunities, assess county-level policy opportunities							
Advocate for state policy initiatives, engage other stakeholders								

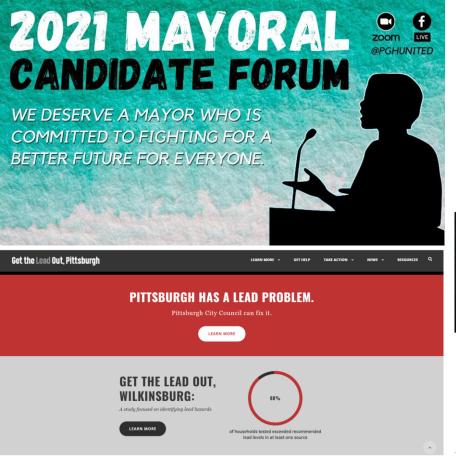
Successes of the coalition:

ACCOMPLISHMENTS

- Engaged more than 50 individuals and organizations across sectors in our work together.
- Worked with partners to improve data reporting and access to community maps.
- Improved and streamlined referral system to early intervention services.
- Created educational materials targeted to families, DIYers, landlords, municipal leaders, and more.
- Hosted educational information sessions and workshops in partnership with county agencies, community partners, and social service providers.
- Created a policy toolkit to help municipalities and local leaders plan and consider lead primary prevention policies.
- Hosted lead training courses to get inspectors and contractors certified in Lead Renovation, Repair and Painting (RRP), and Lead Dust Wipe Sampling.



Get the Lead Out, Pittsburgh is a campaign working to shine a light on lead poisoning, provide guidance for families suffering from its impact, and drive change.



Advocacy



Read the below petition and sign your name to demand change.

GetTheLeadOutPgh

Get the Lead Out, Pittsburgh

Grandmother fights to get lead removed from her home

She said she needed the new housing immediately; a \$2,400 deposit had already been made and the lease signed - with rent set at \$500 a month. The landlord replaced a leaking water tank and a window and made wall and ceiling repairs, she said.

The household was busy. Ms. Nicholas said she was up at 3:30 a.m. to get to work by 5. Her daughter was working evenings. The kids went to daycare by 10 a.m. and her vouncest daughter had to be at school by noon. On July 23, the Inspection was done

Ms. Nicholas said. "The inspector] told me my house was filled with lead. And he would contact me on what meeded to be done.

Her grandson's blood lead levels continued to test high CES micrograms on July 16 and Aug. 14) "I told the landlord. I was

Lead found everywhere

On Aug. 12 the family got the results of the home inspection. A copy was sent to Jarred Goldman, including a notice that state law reoutres that a lend certified contractor must do lead hazard reduction work - a reoutrement later contested by

the Goldmans. The inspection report said both the interior and extewere evaluated with X-ray fluorescence technology Thist, soil and water samples

Inside areas that tested positive for lead included doors, door trim, door jambs, base boards, window sills, window trim, walls and sashes. Exte rior areas with lead included door trim, door jamb, porch how window wells, coul door. window sashes and all parts of the cellar windows.

The Allegheny County Health Department did 105 similar investigations in 2018



The exterior of Janel Nicholas' rental house along Swissvale Avenue in Wilkinsburg.

b as a dietary aide at West

They moved to a hotel in Harmar, Ms. Nicholas left a message with the landlord saying she expected him to reimburse her for the hotel

Seeking legal help

When the Goldmans didn't start renairs in Au-Neighborhood Legal Services, with Meghan Tighe assigned to be her attorney The legal service regulari defends tenants in eviction

Ms. Tighe teamed up with the Community Justice Proj Lovett and Duniel Vitek nov represent Ms. Nicholas. CJP also has experience representing lower-income rentand till as of Dec. 20 this year, ers by pursuing litigation in Justice Project.

lanel Nicholas, of Wilkinsburg, is fighting a legal battle with her landlord over elevated lead levels found in members of her family because of alleged poor conditions in their rental property. To watch a video, visit post-gazette.com.

vices for 10 years before he court, she added. joined the Community

Ms. Nicholas said she tel rooms were paid for, acknows many people don't

fied contractor for the win-

After the landlord contion, the judge on Sept. 20 upheld his ruling and gave warning that there could be \$1,000-a-day penalty if his

On Sept. 25, the judge re-The landlords had asked moved Rick Goldman from the injunction order due to is bankruptcy, but ordered his son to use the lead certi-

ease co-aigner, to pay After the judge's second or-

and paid for the hotel stays. As long as Ms. Nicholas Ms. Lovett said at first the nots her rent into escreta landlords made reservations. she will be able to stay in the house, pending the outcome a few days at a time, as they sought a reversal of the order. of the appeal and until he Between Sept. 20 and Oct. lease expires at the end o 12, stays in five different ho-February Ms. Locott said. cording to Ms. Lovett. The fi-

Mr. Parrish said there is a record of the tenant contact ing the code office, complain ing of lead paint hazards and

"We have sent him notice for this year [involving] Parrish said. He said on Dec is the borough has filed cita rict Judge Kim Hoots against Jarred Goldman for multiple properties, includ ing the Swissvale Avenue

parcels in the borough about 2,800 have confirme rental units, Mr. Parris' artment gives out 300-500 sitations a year, aiming to protect the health, safet and welfare of tenants by enforcing property mainte

Lead-point barards are part of the problem, he said. We just received anothe who wants to be anonymous because they're scared the landlord will kick them out.

The legal conflict continues. According to her law ng a ruling issued Dec. 10 b Sistrict Judge Hoots after hearing on an eviction no

for \$12,000 (\$5,950 in unpaid rent and late fees, plus dam-

Nicholas and her mother, a \$3,966.55 for unpaid rent plus

Get the Lead Out, Pittsburgh

STRATEGIES

- Mobilize communities, organizations and people to advocate for law and policy to protect communities from lead
- Support municipalities working to create a community-driven response to lead exposure
- Raise public awareness of lead poisoning and its impacts
- Share data that helps inform decision-making
- Provide access to advice and assistance for families impacted by lead exposure









Get the Lead Out, Pittsburgh

CAMPAIGN SUCCESSES

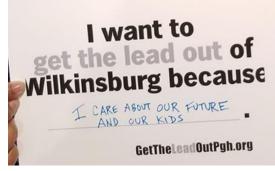
- Community based coalitions
- Social media/awareness campaigns
- Grassroots initiatives
 - Demo Detectors
 - Soil sampling
 - Home assessments
 - Calls and Letters to elected officials
- Policy and Legal Advocacy

Let's Talk About Lead in Wilkinsburg

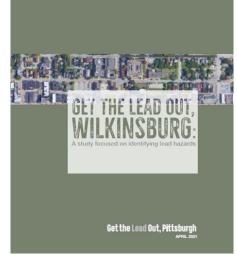
Community Conversation December 11, 6:30 pm St. James Church 718 Franklin Ave, Wilkinsburg











LEADERS and LEAD

How municipalities can lead the charge to protect against lead

Join us for an inspiring morning that can set your municipality apart:

- Ordinances that are fiscally friendly
- ☐ Protect your community's most valuable asset: children
- ☐ Proactive lead inspection programs and rental registries
- □ Costs associated with regulations; resources available for testing and remediation
- ☐ Implementing lead-safe demo practices

PLUS, a real world case study featuring:

Len Merritt

Manager of Code Enforcement, City of Rochester

November 21, 2019

Check-in/Breakfast — 9:30 am Speakers/Discussion — 10:00 to Noon



Municipal Lead-Safe Policy Toolkit

Lead Safe Allegheny County Coalition Policy Committee

About

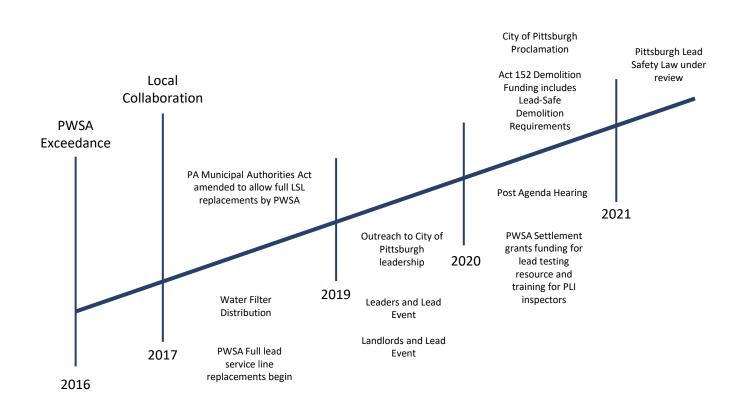
This toolkit contains policy recommendations for municipal action to reduce lead exposure and lead poisoning that occurs as a result of: deferred maintenance in rental housing, unsafe renovations and repairs that disturb lead paint, unsafe demolitions, and drinking water contamination. Municipalities around the nation have begun to implement policies to address these pathways to lead poisoning. Policies that promote lead-safety in these areas ensure that exposure to this neurotoxin never occurs in our most valuable community asset: children.

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1

Collaborative Strategies for Lead Prevention



PITTSBURGH LEAD SAFETY LAW

Protecting our children from the lasting harm of lead poisoning.

Because there is no treatment or cure for lead poisoning, Pittsburgh is committed to preventing children from being exposed to lead in the first place. The Pittsburgh Lead Safety Law is designed to address the most common pathways of exposure in the city's children.









Lead-safe rental homes and child-occupied spaces

Inspections for lead paint, dust, and soil hazards will occur in rental homes and child care centers built before 1978. If found, lead must be remedied and subject to reinspection. Additionally, renters and property owners may request inspections. Renters are protected from retaliation.

Lead-safe demolitions

All city-funded demolitions must have a lead-safe work plan to ensure they are conducted in a lead-safe manner and include notification to neighbors in the surrounding area.

Lead-safe renovations and repairs

All contractors or firms working in spaces built before 1978, whether a residence or a space where a child spends time, must demonstrate they will complete their work in a lead-safe manner.

Lead-safe drinking water

Approved filters will be installed in all city-owned drinking and cooking facilities, and encouraged in all schools and child-occupied spaces.

Get the Lead Out, Pittsburgh CAMPAIGN SUCCESSES

Pittsburgh City Council passes Pittsburgh Lead Safety Law – November 30, 2021!

Together, we can protect our children and make Pittsburgh a lead-safe community for all

Get the Lead Out, Pittsburgh



Direct Service

Protections for tenants and impact of housing

Understanding Tenant Rights

As a tenant, you are entitled to live in an environment that is habitable and safe.

- 1. Your landlord cannot discriminate against you
- Your landlord must give you notice to leave the residence unless you have signed a lease waiving your right to the notice
- Your landlord cannot lock you out or shut off your utilities
- Typically, your landlord cannot withhold your property from you after you have moved out

Protections Under State Law

- Under state law (Implied Warranty of Habitability and Repairs) every landlord in Pennsylvania must make the repairs needed to keep the rental house in a safe, sanitary and livable condition.
 - a. This includes only serious defects such as:
 - i. Leaking roof
 - ii. Dangerous wiring
 - iii. Broken floor
 - iv. Lack of water
- If the landlord does not make the repairs, then the tenant has the right to repair and deduct the cost of repair from future payments to the landlord.

To protect your rights under the implied warranty law, you must complete the following steps:

Step 1: Tell the landlord about the problem.

Tell your landlord, in writing, what the problem is and what you plan to do about it. Keep a copy of the letter to prove that the landlord was notified.

Step 2: Allow your landlord time to repair.

The law gives your landlord a reasonable amount of time to make the repairs.

The amount of time depends on the seriousness of the defect. If it is an emergency, the landlord is required to act quickly

Step 3: Collect evidence to show that the landlord did not make repairs.

It is important to give the landlord notice and to have evidence that the landlord did not make repairs. A copy of the letter sent to the landlord can be used as evidence; so can pictures, witnesses, or the report of a housing code inspector.

Step 4: Repair and deduct.

If the landlord does not make the repairs, you can repair and deduct. You should not repair and deduct for repairs that exceed the monthly rent. Seek legal help if the repair is costly.

ways to protect your child from lead poisoning

Lead poisoning, which can have lasting effects in children, from lower IO to behavioral problems, happens when people are exposed to lead, which is commonly found in paint, dust, soil and water -- especially in homes built before 1978. Some simple steps can help us all *Get the Lead Out, Pittsburgh*.



1. Maintain paint

Routinely check for chipped, cracked or peeling paint



2. Drink up

Use an NSF-certified water pitcher or faucet-mount filter to remove lead from water, especially during a boil advisory



3. Chill out

Use cold water for drinking and cooking -- never hot tap water -- especially baby formula



4. Wash up

Make sure kids wash hands before eating, especially after playing in the dirt



5. Step up

Use a door mat at your entrance or be a shoe-free home



6. Clean up

Weekly, to reduce lead dust, use a mop, sponge or paper towel with water and cleaner on floors, window frames and windowsills



7. Cover up

Be sure to cover bare soil and use raised garden beds



8. Play safe

Antique wooden toys, cheap plastic jewelry and imported pottery may contain lead



9. Get tested

Your children, your home, your water – all should be tested for lead



10. Eat well

Foods rich in iron, calcium and vitamin C, and low in fat, can help prevent absorption of lead

Get the Lead Out, Pittsburgh

Lead Safe Homes Program

- Owner-occupants, tenants, and landlords are eligible to apply for the Allegheny Lead Safe Homes program. If the property is a rental, both the landlord and the tenant must complete an application and agree to the program guidelines.
- Minimum eligibility requirements include:
 - Property location and age
 - Must be located in Allegheny County
 - Must be built prior to 1978
 - Presence of a child younger than age 6
 - Homeowners: A child under age 6 must live in or regularly visit the home, or a pregnant woman must live in the home
 - Renters: The landlord must give priority to low-income families with a child under age 6 for 3 years following completion of the repairs
 - Income
 - Must be occupied by families at or below 80% of the Area Median Income (AMI)
 - At least 50% of the total number of rental units assisted under the Program must be occupied by families at or below 50% of the AMI



Do You Qualify?

- Are you a homeowner or renter in Allegheny County?
- Homeowners: Does a child under age 6 live with or regularly felt you OR does a pregnant woman live with you?
- Renters: Is your landlord willing to participate and give priority to low-income families with a child under age 6 if you move in the next 3 years?
- Was your home built before 1978?
- Does your household's annual income fall below these limits?

Family Size	Pre-Tax Income
	542,600
2	\$48,650
3	\$54,750
4	\$60,800
5	\$65,700
	\$70,550

 If you are a landlord, does your tenant meet the requirements above?



Allegheny Lead Safe Homes Program

Providing free home repairs to keep families safe from lead paint

Why you should apply:

Lead is most dangerous to children under age 6 because their brains and nervous systems still are developing. When they put their hands and other objects in their mouth, they can swallow lead-point dust, which can be invisible to the naked eye. Children also can be exposed to lead by investing soil. flood, or woter containing it.

THERE IS NO SAFE LEVEL OF LEAD. Even low levels of lead in the blood of children can result in:

- . Behavior and learning problems
- . Lower IQ and hyperactivity
- Hearing problems

Lead also can cause premature birth for pregnant women.

The following services are provided for FREE:

Lead-Paint Testing

The program will test for lead paint throughout your home and identify all areas that may be dangerous.

Home Repairs

The program will hire a Certified Lead Abatement Contractor to repair all lead hazards found in your home. Examples of repairs include:

- Repairing and repairting chipping and peeling lead-painted surfaces
- Window and door repair or replacement
- Enclosing exterior trim and components
 Repairs up to \$12,000 will be made at no cost to the owner. Owner contribution may be required above that amount.

To apply:

Call 412-227-5700;

E-mail: alleghenyleadeactionhousing.org; Or Visit: alleghenycounty.us/leadsafeprogram



In Allegheny County, 80% of homes were built before 1978 when lead was banned from paint. And, according to inspections by the Allegheny County Health Department, the top sources of lead poisoning in our community are dust and paint. Is your family safe from lead poisoning?

A simple lead risk assessment can identify potential sources for lead exposure in your home. And, based on your answers to the questions below, the assessment may be free or very low cost.

To determine if you're eligible for services including a free or reduced-cost Lead Risk Assessment, please complete the following questions.



Resources

Allegheny County

- Allegheny County Health Department: EBLL Home Investigations, Screenings
- Allegheny County Economic Development: Lead Safe Homes Program

Alliance for Infants and Toddlers

Early Intervention Services for children 0-3

Pittsburgh Public Schools

• Early Intervention Services for children 3-5, City residents

Allegheny Intermediate Unit - DART Program

Early Intervention Services for children 3-5, County residents

Community Justice Project

Legal support for renting families

Pittsburgh Water and Sewer Authority

- Water testing (within service area)
- Lead service line replacement

Women for a Healthy Environment

- Healthy Homes resources
- Lead testing for toys and household items