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LEFT IN THE DUST

**The Failure
to Protect
New York City
Tenants from
Lead Dust
Hazards
During
Residential
Construction**



About the Authors



Lead Dust Free NYC is a group of Lower East Side residents that, together with Cooper Square Committee, are dedicated to eliminating lead dust in housing. We provide New York City tenants with the best possible resources for dealing with interior lead dust hazards, which are often brought about by predatory equity—a money-making scheme based upon construction as harassment. In 2018, in collaboration with other tenant advocacy groups, we released *Lead Loopholes How Lax Enforcement of New York City’s Lead Paint Poisoning Prevention Laws Let Landlords off the Hook and Leaves Children at Risk* and in 2019 we released *Collecting Dust How NYC is Failing to Penalize Landlords for Exposing Tenants to Lead Dust*. As an organizing initiative of Cooper Square Committee, we support the broad goals of NYCCELP’s 2024 *Lead Agenda A Roadmap to Eliminating Lead Poisoning in New York*, which was released in March 2024.



Cooper Square Committee works with area residents to contribute to the preservation and development of affordable, environmentally healthy housing and community and cultural spaces so that the Cooper Square area remains racially, economically, and culturally diverse. We have spearheaded significant neighborhood victories in our history, comprising over 50 years of tenant organizing, community-based planning, advocacy, and development. We rely on the active involvement of our members in the organization’s work to advance our affordable housing agenda. Cooper Square Committee is a member of The New York City Coalition to End Lead Poisoning (“NYCCELP”).



TakeRoot Justice provides legal, participatory research and policy support to strengthen the work of grassroots and community-based groups in New York City to dismantle racial, economic, and social oppression. TakeRoot’s Research and Policy Initiative partners with and provides strategic support to grassroots community organizations to build the power of their organizing and advocacy work. We utilize a participatory action research model in which low-income and excluded communities are central to the design and development of research and policy.

Acknowledgements

This report was a collaboration on the part of many dedicated people, from those affected by lead exposure to researchers and lead experts. We acknowledge the efforts of many people, with emphasis on those who were exposed to and poisoned by lead and who will continue to bear the impact throughout their lives. Many of the community members involved in this research live in the Lower East Side – a community whose strength, resilience, and community activism is greatly revered. Though some community members involved have chosen to remain anonymous, their work still lifts up everyone who has suffered from lead exposure, especially those impacted in areas that are not consistently recognized by our city and state.

NYCCELP, LDFNYC, and CSC would like to thank the TakeRoot Justice Research & Policy team, Irene Linares and Erin Markman, who patiently worked with us on this project. We also thank our Advisory Board: Dr. Morri E. Markowitz, Matthew Chachère,

Jessica Bellinder and Reuven Frankel, and all dedicated members and organizations of NYCCELP who have worked tirelessly for decades to end lead poisoning and protect New York's families. We also thank St. Nicks Alliance for their collaboration in collecting data from affected tenants throughout North Brooklyn, and Rajiv Jaswa for his time and dedication. We would also like to thank Shannon Hui for designing this report.

Finally, our deepest heartfelt thanks to our invaluable LDFNYC members and leaders who participated in this research, shared their personal experiences with lead-laden dust and construction in their homes, and lived through conditions no one should ever face, especially those who faced exposure during the COVID-19 pandemic. They continue to fight for stronger laws and enforcement regarding lead contamination. They are steadfast in their pursuits and an inspiration to all.

There are no safe levels of lead for adults or children, and the inhalation or ingestion of microscopic lead dust is the most common manner by which lead enters the body.ⁱ

Through our community-based work, Lead Dust Free NYC (“LDFNYC”) understands the dangers associated with lead dust and how it is weaponized by landlords: cutting corners during residential construction in rent regulated buildings by ignoring safe work practices and violating lead laws, routinely subjecting low-income tenants to both construction hazards and exposure to lead-laden construction dust. Because of this, **we recognize lead dust as a housing justice issue.** Despite the fact that New York City’s lead protection laws and enforcement systems are more substantial than those in other parts of the state and country, they still fall short. Tenants have limited recourse when seeking to address these problems, and the City’s staffing and systems for investigating complaints holding landlords accountable is woefully insufficient.

Over half of New York City’s residential buildings were built before 1960.ⁱⁱ According to one source, New York State has “the oldest housing inventory among the fifty states”, with the highest percentage of housing built before 1960 (55%) and before 1950 (41%).ⁱⁱⁱ All

of these buildings are presumed to have lead-based paint in them, and local and federal laws and safe work practices are supposed to protect tenants from exposure to lead dust caused by disrupting that paint during construction. Other lead-based paint hazards include peeling or damaged paint and painted friction surfaces such as those around doors and windows.^{iv}

Children are and should remain the focus of New York City’s lead laws. Preventing and eliminating lead poisoning in children was the focus of landmark legislation Local Law 1 which passed in 2004. Twenty years later, tenants and advocates know that the City failed to fully achieve that goal. In 2022, according to the New York City Department of Health and Mental Hygiene (DOHMH), over 5,000 New York City children under six years old were identified as having levels of 3.5 micrograms of lead per deciliter of blood or greater (the current action level for the Centers for Disease Control), representing “a 3% increase from 2021 when there were 4,970 children with blood lead levels of 3.5 micrograms of lead per deciliter or greater.”^v

However, the critical goal of protecting children should not come at the cost of failing to also protect adults. In New York City, definitions of lead hazards, requirements for monitoring lead, and provision of assessments all hinge on the presence of children under 6 in the unit.^{vi} Currently, units in which children do not reside or spend significant time (10 or more hours per week) are not tested for lead. In August 2025, Local Law 31 will go into effect, which requires lead

testing in every single pre-1960 dwelling, regardless of whether children reside there.^{vii} Despite this gain, more remains to be done, both with the introduction of additional protections and enforcement of existing laws. And until Local Law 31 goes into effect, adults who do not live with children will likely not have lead testing done in their homes, putting them at risk for exposure. While experts agree that children are the most vulnerable population when it comes to lead, the result is that “those without young children are less of a priority”.^{viii} Strengthening existing laws and enforcement will help keep all New Yorkers safe from lead.

LDFNYC is made up of concerned community members and tenants dedicated to eliminating lead dust in residential buildings, regardless of whether children are present. Achieving this requires that construction practices be fully enforced, that landlords are held to the highest standards of maintenance and safety during construction, and that all tenants are protected. While current legal protections against exposure to lead dust represent a substantial organizing victory for tenants, more must be done--both to strengthen and expand existing laws and to ensure that landlords are held accountable.

We partnered with TakeRoot Justice on a participatory action research project to investigate and document construction practices by landlords in residential buildings that result in lead dust exposure. The results of our research demonstrated that safe construction practices are not being enforced. We also documented the emotional and physical impact on tenants living through such construction.

Our research shows:

- **Tenants whose buildings’ common areas or individual units have undergone residential construction report a litany of violations of the safe work practices designed to protect against exposure to lead dust during construction.**
- **Nearly all surveyed tenants saw visible dust in their buildings. Fears of lead exposure caused significant distress and disruption in their daily lives.**
- **It is difficult for tenants, especially those who do not have children living in their units, to hold their landlords and City agencies accountable.**

All tenants deserve the right to live in lead dust-free buildings. Lead dust exposure in residential buildings should be eliminated—period. We call on City Council, Department of Housing Preservation and Development, Department of Buildings, and Department of Health and Mental Hygiene to improve the implementation and enforcement of the laws that are designed to keep tenants safe during construction, carry out a number of changes to strengthen the enforcement of those laws and to introduce new legislation. **Detailed policy recommendations are found at the end of this report, and highlights include:**

- **Introducing new legislation and strengthening and enforcing existing legislation to better protect against exposure to lead dust in residential buildings, regardless of whether children are present.**
- **Hiring adequate City staff to monitor the effectiveness of tenant protections and interface with tenants during construction.**
- **Implementing stronger penalties for egregious violations of laws designed to protect against lead dust exposure.**
- **Improving access to publicly available information, including X-ray Fluorescence test results.**



How does lead dust exposure happen, and what is its impact?

The harmful effects of lead were first described by Greek poet and physician Nikander in 200 B.C.^{ix}

Lead dust is dangerous, even in microscopic amounts. Lead dust exposure occurs when lead-based paint is disturbed or broken down during construction.^x The dust can then be inhaled or swallowed when it lands on surfaces such as floors, window sills, toys and food.^{xi} Even intact lead-based paint can generate dust through abrasion.^{xii} Childhood lead exposure can cause low IQ levels, Attention Deficit Disorder, reduced educational attainment and increased anti-social tendencies.^{xiii} **The neurological and behavioral effects of lead poisoning in children have the potential to be irreversible.**^{xiv}

Lead exposure is also a grave concern for adults. Even low levels of lead exposure in adults increases risks of cancer, neurological, cardiovascular and renal issues.^{xv} Ingestion of lead particles causes damage to developing fetuses and can lead to miscarriages and premature birth. Headaches, stomach cramps, digestive issues, muscle and joint pain, sleep issues, fatigue, and irritability are all symptoms of lead poisoning.^{xvi}

In addition to tenants, residential construction workers face substantial lead dust exposure. Contact with lead occurs when they remove or handle lead-based paint, demolish and remodel buildings and recycle materials containing lead. Lead dust “attaches to [their] clothing, skin, hair and personal belongings”.^{xvii} Lead dust can then be taken into their cars and homes. This “take-home contamination” is not always prevented with safe work practices and “much of the burden is often on the worker to incorporate safety practices into their daily routines, such as changing clothes at work, leaving contaminated clothing at work, and always washing their hands and face or showering before going home”.^{xviii}





Prohibited practices

The following practices are prohibited during work that disturbs lead-based paint or paint with unknown lead content:^{xix}

- Dry scraping or dry sanding in any dwelling
- Open flame burning or torching
- Power sanding and grinding without High Efficiency Particulate Accumulate (“HEPA”) filtered vacuums
- Volatile paint strippers in poorly ventilated area or hazardous chemicals (in child-occupied dwellings)

Tenant Profile: Georgia

“I came to New York City as a dancer and continued dancing for years”, Georgina told us. “In ‘71 when I moved into the building, I became more involved in neighborhood concerns.” Georgina’s Lower East Side building has undergone multiple rounds of construction, each one endangering the health of its residents. “During each round I learned more about the dysfunction of city agencies and the construction process”, she says.

At the height of the most recent construction which involved “demolishing and reconstructing [ten units] into Frankensteined apartments”, the majority of her building’s tenants were seniors. “I’m 73”, she shared. “Our immune systems are considered compromised when you’re a senior. It felt like we were being left out, and with so much dust... and then asbestos reared its ugly head.” Because there weren’t any children residing in her building at the time, the City did not test for the presence of lead dust, leaving Georgina to feel that there wasn’t “any major concern [on the part of] HPD, DOB or the EPA” to ensure safe construction practices. “It was like you were fighting an uphill battle.”

“If you envision a dust storm, that’s what our apartment looked like, our building looked like. Especially when [construction workers] removed the construction debris...they would carry these bags through the common area and the bags would leak the dust... they would be going up and down the stairwell stomping on the dust that was falling out of the bags that would create more dust... they would either carry them down or drag them down, but [the bags] always had holes...they leaked. They leaked dust.” Georgina discovered workers used “one air scrubber and they didn’t keep the plastic doors covered.” Leaking bags of debris and failure to secure the construction area with plastic sheeting are violations of safe work practices intended to keep residents safe from lead dust exposure. “There was no time during this construction process where we were safe without being contaminated with dust... of any kind.” The dust was “all over...on the stairwell, banisters, floors, window grates...window screens,” she said.

Georgina felt “very vulnerable” as she observed the “failure of the entire system” of tenant safety. “They didn’t care...there was an oversight person,

but most of the time he was outside in his car. And when the dust got really bad or the building became really loaded with dust, I would...knock on his car door and I'd say, 'Hey, we need help!'"

During the construction, Georgina says her calls to 311 went unheeded. "No one shows up right when you call them," she said while also acknowledging that city agencies are "underfunded and undermanned." It was only after a City Council office got involved that HPD and DOB visited and observed her building, which resulted in a Notice of Dust Hazards. She felt some satisfaction but wondered "how do you follow up with that? What does that mean? How do you keep the construction process in line? I was pleased to get [the Notice of Dust Hazards], but...they didn't have a penalty served on them," she said.

If she were tasked with addressing how the City deals with lead dust exposure and tenant concerns about lead dust, Georgina said it would start with "honest communication" and "internal connections between agencies", and she questioned the role of landlords and contractors in self-reporting to the DOB that buildings have not been

tested for lead and asbestos. "There is no communication between city agencies that protect tenants and that has to change," she said. She also suggested that Tenant Protection Plans should include the number of air scrubbers needed for construction.

Georgina said it was "mentally fatiguing and depressing" to deal with the construction. "You feel like you're literally up against a brick wall. We deserve better than that."

Tiers of confusing, overlapping laws and bureaucracy result in poor enforcement

Lead-related laws, safe work practices, and abatement (the process of removing lead-based paint) each fall under various City and federal agencies, creating a confusing landscape for tenants and their advocates. The New York City agencies tasked with enforcing and implementing laws and safe construction practices are notoriously understaffed and are spread thin across the city, and federal agencies are also overburdened.^{xx}

Locally, enforcement of lead-based paint laws is divided among the Department of Housing Preservation and Development (“HPD”) the Department of Health and Mental Hygiene (“DOHMH”) and the Department of Buildings (“DOB”), and each agency has specific responsibilities. HPD is responsible for receiving tenant complaints about chipped and/or peeling lead paint, issuing violations for lead hazards, conducting lead inspections and auditing building owners’ lead-based paint records.^{xxi}

DOHMH is the primary agency responsible for identifying sources of lead exposure in the environments of children with elevated blood lead levels. It also responds to

complaints about lead dust contamination, sets standards for safe work practices and collects data about lead poisoning.

Lead-safe work practices fall under the governance of both local and federal agencies; primarily DOHMH and the HPD, as well as the federal Environmental Protection Agency (“EPA”) and the Occupational Safety and Health Administration.^{xxiii} The EPA also regulates worker training and certification requirements and can hold both contractors and property managers responsible for compliance with the Renovation, Repair and Painting Rule.^{xxiii} Building owners are instructed to follow both federal and local requirements for lead-safe work practices.^{xxiv}

In the confusing overlap, enforcement slips through the cracks and accountability becomes muddled, compromising tenant safety across the city. In 2019, then-Comptroller Scott Stringer released a report that revealed the “City’s systemic failure to protect children from toxic lead.” The report showed that crucial data regarding the location of almost 12,000 children who had elevated blood levels between 2013 and 2018 “remained siloed” within DOHMH.^{xxv} As a result, HPD, “the agency empowered to inspect buildings and enforce landlords’ obligations to prevent lead exposure” did not perform lead inspections in the over 9,500 buildings where the children tested positive for lead exposure.^{xxvi} Lack of interagency communication and siloed data resulted in a “hit or miss” lead inspection system that “left as many as 63% of all buildings under

HPD's jurisdiction with documented cases of child lead exposure entirely uninspected by HPD lead inspectors."^{xxvii}

The enforcement and collection of penalties in full from landlords is particularly flawed. Multiple reports show that the City is failing to collect fines and fees from landlords and one source notes that the City is owed over one billion dollars, nearly all owed by landlords.^{xxviii}

Landlords reap the benefits of lax fee collection and of fee reduction and settlement programs when agencies like New York City Office of Administrative Trials and Hearings ("OATH") accept low settlements from landlords. The ability to reduce and settle fees via programs like the OATH-Adjudicated Environmental Control Board Judgments Settlement Program enables landlords to continue to act in bad faith and violate laws and practices intended to keep tenants safe.

The ability of building owners to negotiate and reduce fines for lead violations and Housing Maintenance Code and Health Code violations must be limited, and agencies should be held accountable for enabling the reduction of fees that were originally intended to fine landlords for violations.

Implementation and enforcement are the weak points of local agencies. Lead laws, safe work practices and their associated penalties are rendered meaningless when they are not fully implemented or enforced, as this report documents.



Methodology

This participatory research project was designed by LDFNYC organizers and members with support from TakeRoot Justice.

Surveys

39 surveys were administered to tenants across 30 buildings in Manhattan and Brooklyn by members of LDFNYC and CSC and advocates at St. Nicks Alliance. 37 surveys were administered in English, and 2 in Spanish. Surveys were administered over the phone to tenants who live in buildings that were built before 1960 that underwent construction between 2018 and 2023. The survey was designed by LDFNYC organizers and members and aimed to document the lead exposure concerns of rent-stabilized tenants due to construction in their buildings, and to gain insight about the implementation and enforcement of safe lead construction practices designed to lessen lead exposure to tenants.

Tenant profiles

Semi-structured interviews were conducted with tenants who experienced the failure of lead-related laws, practices and concerns about being exposed to lead dust during construction in their buildings. These interviews inform the member profiles included throughout the report.

Background research

TakeRoot conducted legal research on local laws and safe construction practices regarding lead-based paint and lead dust. A review of lead laws and regulations, safe work manuals, news articles, and related reporting on exposure to lead dust were also conducted.

Research limitations

LDFNYC is made up of tenants dedicated to eliminating lead dust in housing. The neighborhoods of focus and capacity demands impacted the scope of our outreach. Most surveyed tenants spoke English, although two surveys were administered in Spanish. We acknowledge that this sample does not fully reflect the diversity of New York City. In addition, as a tenant advocacy organization, we reached many tenants who may be more knowledgeable than average about the rights available to them because they are working with tenant advocacy groups.

Our research sample allows us to show a snapshot of the New Yorkers in vulnerable conditions due to their concerns about lead dust exposure and the lack of enforcement and meaningful implementation of laws and work practices designed to keep them safe.

Demographics table

Demographics of Survey Sample (39 total)		
Years lived in apartment N= 39	0-2 years	3%
	3-5 years	3%
	11-15 years	10%
	16+ years	85%
Current age N= 36	18-24	3%
	24-44	6%
	45-64	53%
	65	39%
Gender Identity N= 39	Female	59%
	Male	41%
Race/Ethnicity* N= 38	White	74%
	Latinx (any race)	11%
	Black or African American	8%
	Asian or Asian American	5%
	Other	5%
Primary Language* N= 29	English	90%
	Spanish	15%
	Other	3%
Estimated yearly income of household N=36	\$10,000-14,999	3%
	\$15,000 - \$24,999	19%
	\$25,000 - \$34,999	8%
	\$35,000 - \$49,999	19%
	\$50,000- \$64,999	8%
	\$65,000- \$79,999	8%
	\$80,000- \$94,999	11%
	\$95,000- \$109,999	8%
	\$110,000 or above	14%

*Responses in this category sum to more than 100% because respondents could select more than one answer option.

Tenant Profile: Keith

Keith has lived through years of construction in his Lower East Side building. His landlord was a regular on “worst landlord” lists for allowing rent stabilized apartments to fall into alarming levels of deterioration and was sentenced to a year at Rikers Island for multiple crimes.¹ Recalling the worst of it, Keith shared that “any kind of vibration noise from the gut renovation era...I have PTSD from it. [Construction] was going on all hours of the night, they didn’t care about people living in this building.... there were years of sleeping with the dust mask, the heat was off...it was a nightmare.”

In summer 2023 the building flooded, and Keith’s kitchen ceiling collapsed. “I was displaced for a week. And they came in and patched the ceiling, but they did a horrible job.” He realized the noise-muffling insulation was never installed. “I know this because when the ceiling collapsed, I could see right through, I could see the floorboards [of the unit above].” Then the dust started to seep into his unit.

“There was no attempt to mediate the dust, which was always my main concern,” Keith said. “The dust that would come in through the holes of the cracks of the ceiling, whether it be the heating pipes in the corners that I then tried to patch so nothing could come in, I would still see debris on the floor from whatever was coming through the heating pipes. And that microscopic dust would get into everything. I would have to change my filter twice a week...I would break out into a rash. I sent the management office pictures of my skin breaking out in this weird hive rash from the lead or whatever allergen was present.” Keith experienced “depression, fatigue from not sleeping well and [from the] bad air quality...sinus, headaches, bad allergic reactions...depression set in, anxiety... It was affecting my personal life, my social life, my work life.”

“It was definitely eviction by way of construction”, Keith stated. “I felt hopelessness. I saw nothing being done to help or to really prove my suspicion that I was living in an unhealthy environment...I have emails

¹ Nir, S. (2017, Oct. 3) *Notorious Landlord is Sentenced to a Year in Jail*. *New York Times*. Retrieved from: <https://www.nytimes.com/2017/10/03/nyregion/steven-croman-landlord-sentenced-rikers.html>

and text messages that I was sending to the liaison and management office regarding the construction workers not being instructed to simply vacuum the debris underneath the floorboards that they ripped up.”

A lead test during the construction found that the hallway contained “10,000 times the amount of legal [levels of] lead”. Keith tried to get his individual unit tested but was told that only common areas would be tested. Luckily, a test for lead in his blood came back negative.

When asked what he would prioritize if he oversaw how the city deals with lead dust and tenant concerns about lead, Keith was clear about “holding the landlord responsible for eliminating the lead.” He noted how city bureaucracy ultimately hinders the enforcement and implementation of eradicating lead dust and ensuring lead-free buildings: “The city has too many departments, but I feel like nobody is doing anything. Healthy Homes...couldn’t do anything...one department that came in to test the lead...could only test the water or the common areas. The air quality guy came in with some fancy machine and

he couldn’t find anything, and the guy who came in to test for mold couldn’t do so because the mold wasn’t visible...How are you supposed to enforce healthy homes?” he asked. Ultimately, it is imperative to prioritize the needs of tenants: “[landlords should] stop being greedy and take care of the people paying rent.”

We surveyed tenants who had experienced construction in their buildings between 2018-2023. Construction occurred in one or more vacant units, in the common areas of buildings, such as lobbies, hallways and basements, and/or in the individual units of survey respondents. The large majority of survey respondents were adults without children living or spending time in their units.

Pervasive violations of safe work practices

Finding 1: Tenants report experiences that are in violation of safe work practices designed to protect against exposure to lead dust:

- Building openings were not consistently sealed. Only 3% of tenants said that openings (such as windows and doors) were properly sealed. 42% said this never happened, and 47% said it sometimes happened.
- Work areas were not sufficiently protected. Only 8% said that a plastic flap was always securely affixed to cover the doorway entrance to work areas. 25% said this never happened, and 58% said it only sometimes happened.
- Occupied units were not sufficiently protected. Only 3% of tenants said plastic barriers were always securely attached to the doors of occupied units to minimize dust. 56% said this never happened and 33% said this only

happened sometimes.

- HEPA filters were not consistently used. Only 3% of tenants say that a HEPA filter was always used. 56% said this never happened, and 19% said it only happened sometimes.
- No tenants reported that work area floors were always covered with plastic-like sheeting and secured with tape. 42% said that work area floors were never covered in this way, and 44% said they were sometimes covered in this way.

Finding 2: Tenants report seeing practices that are explicitly high risk and therefore prohibited in terms of lead dust exposure during construction:

- 83% of tenants reported seeing workers carrying uncovered demolition debris and waste through common areas.
- 78% reported seeing construction waste stored in bags or other containers that were not tightly sealed (including opened and ripped bags, buckets or other open containers, like dumpsters).

Finding 3: Nearly all tenants noticed visible amounts of dust in their buildings during construction (94%)

- Visible amounts of dust endanger tenant health and are a violation of the laws and safe work practices designed to protect tenants. Visible dust during construction reveals that tenant protections are not in place.

Concerns about exposure to lead dust led to numerous negative impacts

Finding 4: Nearly all tenants surveyed reported having concerns that they may have been exposed to lead as a result of the construction in their buildings (87%).

Finding 5: Tenants reported negative emotional and mental health impacts of living with concerns of lead dust exposure.

- A large majority of tenants experienced stress and/or anxiety resulting from concerns they may have been exposed to lead during construction (83%).
- Over half reported experiencing anger (69%).
- Over half reported experiencing fearfulness (69%).
- Almost half of tenants reported experiencing depression and/or hopelessness as a result of lead-exposure concerns (46%).
- Many tenants reported experiencing isolation (43%).

Finding 6: Tenants experienced a negative impact on work performance due to their concerns about being exposed to lead dust.

- More than a third of tenants experienced poor performance at work (39%).

Finding 7: Tenants experienced a range of physical impacts, including respiratory issues, underscoring that protections for adults are crucial.

- Half of tenants experienced headaches resulting from concerns they may have been exposed to lead during construction (49%).
- Half of tenants reported experiencing respiratory issues during or shortly after the construction in their buildings (49%).
- Over half of tenants reported disrupted sleep during or shortly after construction (56%).
- Nearly half of tenants reported experiencing difficulty concentrating (46%).

Protective Measures Taken by Tenants

Finding 8: Tenants were compelled to take extraordinary measures in an attempt to protect themselves from possible lead dust exposure in multiple ways.

- Nearly all tenants increased their daily cleaning (85%).
- Over half decided to spend limited time in their apartments (55%).
- Almost half sealed windows or doors (45%).
- Almost half resorted to wearing a mask inside their apartments (42%).

Uncertainty about legal protections

Finding 9: Most tenants were unsure which protections related to lead dust exposure during construction were available to them under New York City law. Concerned tenants experienced a range of limitations and uncertainties:

- Three quarters of tenants reported being unsure what safe construction practices look like (74%).
- Three quarters of tenants who did not have children living in or frequently visiting their unit were unsure which enforcement measures or laws apply to them given they did not have children in their unit (75%).

Finding 10: Many tenants were unsure which agencies they could contact about their concerns:

- Over half of tenants report being unsure which city, state, or federal agencies to contact regarding their concerns (54%). This figure is high even for the tenants we surveyed who are likely more informed about their rights as tenants than the general population. We suspect this number is much higher in the general population.

Finding 11: Tenants struggled to find the time to address their concerns related to lead-dust exposure:

- Over half indicated that they had limited time during the week to deal with their concerns (62%).

Self-advocacy and fears of retaliation

Finding 12: Most tenants talked to their landlords about their concerns about possible exposure to lead, and many felt increased concern or personally targeted after those conversations.

- Two-thirds of tenants talked to their landlords about their concerns regarding possible lead exposure during construction (67%).
- After speaking with their landlords and/or property management companies, the large majority of tenants felt increased concern (80%).
- Nearly half of tenants felt personally targeted by their landlord or property manager after expressing their concerns (48%).

Finding 13: Half of tenants reported contacting 311 about their lead-related concerns (50%).

- Of those that called 311, the majority contacted the agency to report unsafe work practices related to their concerns about lead (79%).
- Nearly half of those that contacted 311 called to find out what remedies were available to them during construction (47%).

Finding 14: Of those that contacted 311, over half reported feeling unsure about the status of their complaint after contacting 311 (53%).

Finding 15: Tenants advocate for themselves in a variety of ways regarding their concerns.

- A large majority of tenants worked with their neighbors to address their concerns (89%).
- A large majority of tenants contacted a housing/advocacy organization to address their concerns (89%).
- Two thirds of tenants documented problems they saw during construction (with photos, videos or logs) (68%).
- Over half contacted elected officials (61%).
- Over half demanded that the work be conducted properly when speaking to their landlords (58%).

Tenant Profile: Ann

Ann has lived in her building for 20 years. In 2021, Ann's landlord gave her only two days' notice before undertaking major construction in her apartment: replacing her entire bathroom because they claimed the bathroom floor was on the verge of collapsing. She was told the landlord would cover up her belongings, and that she could remain in her apartment and use a bathroom in a different unit that was being renovated.

"So, they start doing the work," Ann describes, "And I'm at my computer, and all of a sudden I see this cloud of dust coming at me and covering everything." She grabbed her computer and a bag of belongings and left the apartment as soon as she could.

Ann's apartment was never protected from exposure to dust. "I only saw two [plastic sheets] held up by two pieces of tape" when the work began. She reports that when she discussed this with the contractor, he angrily told her that "dust is going to get everywhere." She requested more plastic sheeting but what they brought was inadequate, and the dust had already spread. After spending a week at a friend's house to protect herself, Ann returned to

view the apartment. "I was gone a full week and came back to see my entire apartment covered with dust. Obvious, white dust."

Ann initially tried to pursue lead testing through city agencies and the landlord, as well as calling Healthy Homes. "[They said] that I didn't have kids, so they couldn't do anything," she recalls. She ultimately paid for a lead test herself. "Because I couldn't get any tests from the landlord or city agency, I had to hire a private investigator myself," she says. "It cost \$650, which most people wouldn't be able to afford," she noted.

The dust which covered Ann's personal belongings tested positive for lead. "The humongous loophole is that there are no regulations for personal belongings," Ann says. A test ultimately conducted by the landlord used the threshold for lead in a windowsill, which is 40 mcg/ft², and claimed that the tests on her belongings were technically negative because they were below this threshold, despite the fact that they tested positive for lead.

An initial cleaning by her landlord was insufficient, but after much self-advocacy, including receiving letters of support from elected officials, Ann was finally able to get her landlord to do a more thorough cleaning.

Ann was “completely dispossessed” from her apartment for four months and displaced for a total of 22 months. “I was homeless until they finally gave me a place to stay. It was the worst. Everything I called home wasn’t with me. It was covered by dust or being moved around by the landlord.”

“How else am I supposed to look at this, but as them trying to harass me out?” says Ann of this experience. “They’ve been landlords for over 40 years, they know exactly what they’re doing.”

These experiences of harassment have been compounded following the construction. “Another thing I learned,” she says, “Is that if a landlord is able to do something this catastrophic...they probably have other tactics that they want to practice.” The landlord has accused Ann of insisting on staying in the apartment and attempted to blame her for the failure to protect her belongings from

lead. And they have tried to charge her for the time she had to vacate the apartment. “They tried to make it look like I have rent arrears, like I was an irresponsible tenant,” she says. “They put the four months that I was homeless to make it look like I was behind on rent.” In addition, much of Ann’s furniture was damaged and personal belongings were lost in the course of the ordeal.

Ann envisions a world in which people are adequately protected from lead. We need “new laws that actually reflect what is going on,” she says. “Lead laws to protect adults. We need more regulation on surfaces.” Ann knows that laws are only as strong as their enforcement. “Lead-specific officers would be amazing,” she says. “Enforcement is number one.”

Policy Recommendations

Recommendation 1: Amend §173.14(e)(3)(I)(iv) of the NYC Health Code and 28 RCNY §11-06(g)(ix)(D)(b) of the Rules of the City of New York to include a timeframe for the disclosure of dust clearance test results and implement penalties for failure to disclose such results.

- Both §173.14(e)(3)(I)(iv) of the NYC Health Code and 28 RCNY §11-06(g)(ix)(D)(b) pertain to safety standards and re-occupancy regarding work that disturbs lead-based paint, yet both fail to include time frames for the disclosure of lead dust clearance results.^{xxxix} The lack of timeframe for disclosure of dust clearance tests results means that landlords are under no obligation to disclose critical information in a timely manner to tenants who may have been exposed to lead dust. Building owners should provide a printed copy of dust clearance test results to tenants within 3 days of receiving the results. Failure to disclose results within the timeframe should result in penalties similar to those for violating section § 27-2056.4(g) of the Housing Maintenance Code: Owners' responsibility to notify occupants and to investigate.

Recommendation 2: Better enforce the turnover requirements of Local Law 1 and require building owners to comply with tenant requests for copies of abatement paperwork.

- Pursuant to Local Law 1 of 2004 "owners of buildings built before 1960 are required to complete lead-based paint activities when a dwelling unit changes tenants" in order to make the unit safe for new tenants before their occupancy, regardless of whether a child is present.^{xxxix xxxxi} Thus, the presence of lead dust in an occupied unit is an indication that the owner failed in its duty to keep the dwelling free of lead-hazards, such as the proper abatement of friction surfaces during the vacancy. Better enforcement of turnover requirements will ensure the safety of all tenants.
- Lead abatement verification documents are not public in NYC, which means that tenants do not have access to crucial information about the presence and abatement of lead-based paint hazards in their units. Building owners should be required to provide tenants with copies of such paperwork, which they are required to maintain. Failure to provide the paperwork to tenants should constitute both a Class C violation of the Housing Maintenance Code and a rent impairing-violation under 28 RCNY § 25-191, which allows tenants to withhold paying rent until the violation is resolved.

Recommendation 3: Improve lead analysis and tenant safety by requiring building owners to purchase, install, monitor and maintain records for airborne lead analyzers during construction that may disrupt lead based paint.

- Our research shows that almost all tenants surveyed reported having concerns that they may have been exposed to lead as a result of the construction in their buildings. We know that there is no safe amount of lead dust, that exposure to lead dust is more likely to occur in older buildings, and that exposure to lead dust during construction can lead to an acute surge in blood lead levels.^{xxxii xxxiii} Requiring building owners to purchase, install and monitor airborne analyzers will improve the analysis and detection of lead in the air during construction. Owners should also be required to maintain records from the airborne analyzers and provide them to DOH, as well as to tenants upon request. Data from airborne analyzers will be especially helpful in cases in which tenants are unable to obtain free testing for lead poisoning. Lead poses significant health risks in adults, not just in children, and all tenants should be protected from lead hazards.

Recommendation 4: Amend Local Law 31 of 2020 and Local Law 111 of 2023 to publicize the results of x-ray fluorescence testing on City websites.

- Local Law 31 of 2020 and Local Law 111 of 2023 both require x-ray fluorescence “(XRF”) testing and submission of testing records to be maintained and submitted to HPD upon request.^{xxxiv} These laws should be amended to require publicizing the test results on HPD Online so that tenants can access the results. XRF results are accepted as industry standard, are considered reliable and rarely give false negatives.

Recommendation 5: Expand access to and increase awareness of blood lead level testing at participating hospitals.

- Information about blood lead level testing should be readily available to tenants who are concerned about exposure to lead-based paint or lead dust. Currently, information about testing sites, and requirements and costs associated with testing, is difficult to obtain. Tenants who suspect they have been exposed are in vulnerable positions and deserve streamlined, up-to-date information about testing.

Recommendation 6: Update the Department of Health and Mental Hygiene’s (“DOHMH”) website by creating and posting a database listing violations of lead-related health codes and commissioner’s orders. The website should also track complaints about unsafe work practices and violations that have occurred in residential buildings.

- Our research shows that the majority of tenants who contact city agencies about their lead-related concerns are left unsure of the status of their complaints after making contact. DOHMH should establish a website similar to the DOB’s Building Information System and HPD’s HPD Online. Streamlined information about health code violations, complaints status, inspections, and penalties is crucial for tenants and their safety.

Recommendation 7: Establish public access to the LLC Ownership Database so that bad actors who hide behind opaque ownership structures are revealed and held accountable.

- New York State Senate Bill S995B, also known as the LLC Transparency Act, established an LLC Ownership Database which includes the identities of beneficial owners of limited liability companies. The database can only be accessed by federal, state and local government law enforcement in New York State.^{xxxv} Expanding access to tenants and their advocates, as the database was originally intended, will further the transparency needed so

that building owners are accountable to tenants and can be held personally liable for damages.

Recommendation 8: Increase capacity and resources by filling vacant positions in the Department of Buildings, the Department of Housing Preservation and Development, and the Department of Health and Mental Hygiene that pertain to tenant protections, lead safety and environmental protections.

- Filling vacant positions and increasing capacity at the agencies tasked with implementing and enforcing tenant and environmental protections as they relate to lead hazards is a crucial step in ensuring the wellbeing of all tenants.
- The Lead Compliance Officer position informally known as “Lead Czar” was recently filled after having been vacant for nearly a year.^{xxxvi} This position is vital to ensuring lead-safety in New York City and should not be vacant for more than a few months, if at all.

Recommendation 9: Strengthen enforcement of Admin Code §27-2056.11(a)(1), which requires the use of Environmental Protection Agency-certified (“EPA”) abatement personnel in specific circumstances and implement steep financial penalties for building owners for failure to do so.

- NYC Admin Code §27-2056.11(a)(1) requires that when a building owner performs work “in order to comply with a notice of violation or order to correct issued by the department pursuant to this article... such rules shall provide that all such work be performed only by firms which have received certification to perform lead abatement under the regulations issued by the United States Environmental Protection Agency”.^{xxxvii} Enforcement of this code needs to be strengthened in order to ensure full compliance with safe work practices. Further, firms should not be allowed to hire sub-contractors who are not EPA certified. We know through the course of our work that landlords routinely ignore EPA laws, and that doing so causes dangerous, and oftentimes illegal hazards for tenants.

Recommendation 10: The Department of Buildings, the Department of Housing Preservation and Development, and the Department of Health and Mental Hygiene should partner with tenant advocacy groups to create and disseminate a document that clearly outlines tenants’ rights and legal protections related to lead.

- Our research shows that tenants are unsure of the legal protections and rights that are available to them when it comes to lead safety. City agencies should partner with local advocacy groups to create a document similar to a bill of rights that lists tenant protections and rights, building owner responsibilities, safety information, contact information and borough-based resources and support for tenants as they relate to lead-based paint hazards.

Recommendation 11: Enforce the criminal penalties for landlords who fail to do annual inspections per Local Law 1 and reclassify the penalty from a misdemeanor to a Class E felony.

- There are no safe levels of lead exposure.^{xxxviii} The impacts of violating Local Law 1 and endangering the health of workers, tenants and entire communities through lead exposure during construction cannot be understated. Per Section 27-2056.4(g) of the New York City Administrative Code, building owners who fail to perform annual inspections or the one time XRF inspection “shall be

guilty of a misdemeanor punishable by a fine of up to five hundred dollars or imprisonment for up to six months or both...^{xxxix} To the best of our knowledge, criminal prosecution has not been enforced for this provision, and misdemeanors are not taken seriously and fail to deter bad actors from abiding by tenant protections. The penalty for failing to conduct annual inspections should be reclassified as a Class E felony. The City has the power to prosecute landlords who endanger tenant safety, and they should use that power more effectively.

Recommendation 12: Strengthen enforcement and implementation of the requirement that landlords distribute lead-related information pamphlets.

- Administrative Codes §27-2056.4(c), 27-2056.9(d) and (e) and § 17-186, as well as the federal Residential Lead-Based Paint Hazard Reduction Act, require that landlords provide tenants with specific lead-based paint disclosures that include crucial information about health and safety as they relate to lead.^{xi xli xlii xliii} Proper and consistent enforcement and implementation of disseminating such disclosures would increase tenant knowledge, health and safety.

Recommendation 13: Increase the number of buildings audited to determine compliance with the record-keeping requirements outlined in New York City Administrative Code § 27-2056.17.

- Currently, in order to determine compliance with record-keeping for work performed or notices relating to such work pursuant to NYC Admin Code § 27-2056.17, the Department of Housing Preservation & Development audits 200 buildings each fiscal year.^{xliv} Buildings are selected for their violations related to peeling lead-based paint issued as a result of positive XRF tests, violations issued for other indicators of deteriorated sub-surfaces, and building selected at random based on elevated blood level data in certain geographic areas, among other criteria.^{xlv} The number of buildings selected for these audits should be increased to 300 per fiscal year. Further, if audit results reveal substantial non-compliance, the number of buildings audited should increase annually.

Recommendation 14: Pass S2191/A434, which would establish the New York State Lead-Safe Renovation, Repair and Painting Act

- The enactment of S2191/A434 would enable the State to take over the implementation and enforcement of the Environmental Protection Agency's Lead Renovation, Repair and Painting Program ("RRP") which requires workers to be certified and trained in the use of lead-safe work practices, as

these activities create hazardous lead dust when lead-based paint is disturbed. When performed incorrectly, RRP work itself can spread toxic lead dust into the air, and numerous studies by New York State's Department of Health "found that a significant number of child lead poisoning cases were related to RRP activities".^{xlvi}

- As a federal program, RRP rules allow individual states to undertake enforcement of the program, and while many states have done so, New York has not, "even though New York State has the highest number of older residential dwellings with lead-based paint in the nation, and as well the highest number of childhood lead poisoning cases in the nation".^{xlvi}
- A state takeover of the program would not only increase revenue for the state but would importantly ensure that landlords comply with local regulations and certified repairs and would enable the state to assume administration of the RRP rules, allowing the state to conduct training, certification, and enforcement of the RRP. Critically, unlike NYC laws, RRP rules pertaining to safe work practices apply to all rental dwellings, regardless of whether or not children reside there, and as well covering buildings constructed from 1960 through 1978. New York State must take a more robust role in protecting the health and safety of all tenants and adopt and enforce the RRP regulations set forth in EPA standards.

Recommendation 15: Pass Senate Bill S2353A, also known as the Lead Paint Right to Know Act, which would require the disclosure of lead-based paint test reports in real estate transactions.

- The enactment of S2353A would benefit both future homeowners and tenants. The bill would require owners of residential real estate built before 1978 to test for lead-based paint and disclose results to prospective buyers before the sale of the property. It also requires disclosing test results with the New York State Department of Health, which will be tasked with developing a state-wide lead registry. The bill would also establish that tenants, before entering into a rental agreement, would be provided with "all reports of a test for lead-based paint...within the possession or control of the owner."^{xlvi} This passage of this bill would elevate New York State to a new level of protection and disclosure regarding lead and its hazards.

Call to Action

The presence of lead dust is not only a public health concern, but also a housing justice issue. Lead dust generated by deteriorating lead-based paint and through improper construction on lead-painted surfaces harm the physical and mental health of all tenants, especially children and vulnerable adults. Unchecked construction in occupied buildings, also known as construction as harassment, can also be used as a tool to displace tenants as part of predatory real estate practices which threaten entire communities in New York City.

We demand that the Department of Housing Preservation and Development, Department of Health and Mental Health and Department of Buildings as well as New York State's relevant agencies strengthen and enforce existing protections and implement new legislation and administrative changes intended to keep all tenants safe from exposure to lead dust. Landlords need to be held accountable for complete compliance with laws and practices intended to keep tenants safe from exposure to lead.

In an era of budget cuts, lead poisoning prevention should be viewed as a cost-savings measure, as every dollar spent on lead poisoning prevention saves upwards of hundreds of dollars in medical and social service interventions necessary to treat those poisoned by lead.^{xlix} For this reason, lack of funding is simply not an adequate response to our demands. Moreover, the City can and should be recouping substantially more money annually in penalties for lead-related violations.

We encourage all tenants to educate and empower themselves about lead contamination and to organize collectively to fight for safe and healthy housing. NYCCELP and LDFNYC continue to vigorously advocate for reforms to end lead poisoning. We must all take action to hold not only landlords, but our city, state, and federal governments accountable for their role in leaving communities unprotected. These stakeholders can and should be doing a better job to address this issue.

New York City has a long history of enacting lead-paint safety laws, safe construction practices and tenant protections. Many of these gains were tenant-led victories years in the making but are not consistently implemented and enforced.

Important New York City Lead Laws, Safe Construction Practices and Court Victories

1960 NYC bans the use of lead-based paint in residential homes. However, lead still exists in hundreds of thousands of buildings that were constructed before 1960.ⁱ

1985 A class action lawsuit brought by New York City Coalition to End Lead Poisoning (“NYCCELP”) and families impacted by childhood lead poisoning against then-Mayor Koch, Department of Housing Preservation and Development (“HPD”), Department of Health and Mental Hygiene, New York State Department of Social Services, New York City Department of Social Services, and various owners and landlords to compel them to enforce local and federal statutes to eliminate child lead poisoning resulted in the City being held in contempt multiple times.

1996 The New York Court of Appeals, in the case of *Juarez versus Wavecrest Management*, rules that Local Law 1 of 1983 forewarns landlords of their duty to abate lead if they are aware children are present.ⁱⁱ

2004 Local Law 1 of 2004 is enacted after years of tenant organizing. It specified the actions landlords must take to prevent lead exposure, assigned responsibilities to city agencies to assure landlord compliance and established an ambitious goal of eliminating childhood lead poisoning. Its provisions include the following:

- In buildings built before 1960 (or between 1960-1978 if the owner is aware of lead paint), landlords must annually inspect apartments where children under age six reside and identify and fix lead paint hazards.
- Use safe work practices and trained workers for all work that disturbs lead paint or paint of unknown lead content in units where children under age 6 reside.
- Repair lead paint hazards before new tenants occupy the unit. Friction surfaces of doors and windows must be permanently abated upon vacancy.
- Hire federal Environmental Protection Agency (“EPA”) approved firms to fix HPD violations and keep records of all notices, inspections, and repairs.
- Landlords must keep track of notices, inspections and repairs. HPD may ask for copies.

Recent Updates to Protections (2019-2023) and Upcoming Changes^{lii}

- **Local Law 64 of 2019**
 - As of January 2020, apartments and common areas where children routinely spend 10 hours or more must be inspected for lead-based paint hazards.
- **Local Law 31 of 2020**
 - Effective August 9, 2020, landlords are required to conduct X-ray fluorescence (“XRF”) inspections by EPA-certified instructors of all rental dwellings by August 9, 2025.
- **Local Law 66 of 2019**
 - Amended the definition of lead-based paint, which established new standards for lead-based paint hazards; “0.5 milligrams of lead per square centimeter or greater, as determined by laboratory analysis, or by an x-ray fluorescence analyzer.”
- **Local Law 122 of 2023:**
 - Effective September 1, 2024, landlords must provide HPD with records of annual notices and investigations whenever lead-based paint hazards or turnover violations are issued.
 - Beginning in August 2025, owners must provide records of XRF testing to HPD.
- **Local Law 111 of 2023:**
 - By August 2025, common areas must be tested with XRF technology and records must be maintained by owners and submitted to HPD upon request.
- Effective January 2024, when HPD inspectors are completing complaint-based lead paint inspections, they must also visually inspect the conditions of paint in common areas.
- **Local Law 123 of 2023:**
 - Effective January 1, 2025, in buildings built before 1960 where children reside, owners must permanently abate lead-based paint on door and window surfaces, remediate lead paint hazards, and by July 2027 make all floors smooth and cleanable.
 - If after January 1, 2025, a child moves into a unit presumed to have lead-based paint, lead paint must be abated on door and window surfaces, remediate hazards and make all floors smooth and cleanable by July 2027.
- **Local Law 127:**
 - Effective September 2024, criteria for selecting buildings for HPD auditing will include violations for failure to comply with turnover requirements, in addition to the number of violations and data on blood lead levels in specific areas identified by DOHMH. Auditing refers to the identification and selection of buildings to determine their compliance with record-keeping.

Citations

- i Environmental Protection Agency. The Truth about Lead Paint Poisoning. Retrieved from: https://www.epa.gov/sites/default/files/documents/bldg_mgr_brochure.pdf
 - ii NYU Furman Center. 2017. Changes in New York City's Housing Stock. Retrieved from: https://furmancenter.org/files/sotc/SOC_2017_FOCUS_Changes_in_NYC_Housing_Stock_1JUN2018.pdf
 - iii Senate Bill S2191. State of New York. 2023-2024 Regular Sessions. Retrieved from: <https://legislation.nysenate.gov/pdf/bills/2023/S2191>
 - iv NYC Housing Preservation & Development. Services and Information. Lead-Based Paint. Retrieved from: <https://www.nyc.gov/site/hpd/services-and-information/lead-based-paint.page>
 - v New York City Department of Health & Mental Hygiene. Dec. (Dec. 2023). Report to the New York City Council on Progress in Preventing Elevated Blood Lead Levels in New York City. Retrieved from: <https://www.nyc.gov/assets/doh/downloads/pdf/lead/lead-rep-cc-annual-23.pdf>
 - vi U.S. Centers for Disease Control and Prevention. CDC Updates Blood Lead Reference Value. Retrieved from: <https://www.cdc.gov/lead-prevention/php/news-features/updates-blood-lead-reference-value.html>
 - vii NYC Housing Preservation & Development. Get Ahead of Lead Briefing December 2022. Retrieved from: <https://www.nyc.gov/site/hpd/services-and-information/property-owner-bulletins/december-2022.page>
 - viii Wishnia, S. (2019, Jan. 7) Tenants Say Kushner and Other Predatory Landlords are Choking Them with Lead Dust. Gothamist. Retrieved from: <https://gothamist.com/news/tenants-say-kushner-and-other-predatory-landlords-are-choking-them-with-lead-dust>
 - ix National Library of Medicine. Measuring Lead Exposure in Infants, Children and Other Sensitive Populations. Retrieved from: <https://www.ncbi.nlm.nih.gov/books/NBK236453/>
 - x Supra I
 - xi United States Environmental Protection Agency. Fact Sheet. Identifying Lead Hazards in Residential Properties. Retrieved from: <https://19january2017snapshot.epa.gov/sites/production/files/documents/403fs01.pdf>
 - xii New York Lawyers for the Public Interest, Cooper Square Committee, Northern Manhattan Improvement Corporation, New York League of Conservation Voters Education Fund. Lead Loopholes: How Lax Enforcement of New York City's Lead Paint Poisoning Prevention Laws Lets Landlords Off the Hook and Leaves Children at Risk. Retrieved from: https://nylpi.org/wp-content/uploads/2018/09/LeadReport_WhitePaper_092718_LETTER.pdf
 - xiii World Health Organization. Fact Sheets. Lead Poisoning. Retrieved from: <https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health>
 - xiv Mayo Clinic. Lead Poisoning. Overview. Retrieved from here: <https://www.mayoclinic.org/diseases-conditions/lead-poisoning/symptoms-causes/syc-20354717>
 - xv World Health Organization. Lead Poisoning. 2024, 27. Sep. Retrieved from: <https://www.who.int/news-room/fact-sheets/detail/lead-poisoning-and-health>
 - xvi Adults and Lead Poisoning. NYC Department of Health. Retrieved from <https://www.nyc.gov/site/doh/health/health-topics/lead-poisoning-adults-and-lead-poisoning.page>
 - xvii Diana M. Ceballos, Robert F. Herrick, Zhao Dong, Andrew Kalweit, Melisa Miller, Jenna Quinn, John D. Spengler, Factors affecting lead dust in construction workers' homes in the Greater Boston Area, Environmental Research, Volume 195, 2021. Retrieved from: <https://www.sciencedirect.com/science/article/pii/S0013935120314079>
 - xviii Ibid.
 - xix NYC Administrative Code § 17- 181, NYC Health Code § 173.14(d)(2), NYC Housing Preservation & Development. Guide to Local Law #1 of 2004 Work Practices. Retrieved from: <https://www.nyc.gov/assets/hpd/downloads/pdfs/services/l1-work-practices-cover-and-guide.pdf>
 - xx New York City Comptroller. (2023, Mar. 6) Reports. Understaffed, Underserved: Impact of Staff Vacancies on Agency Performance. Retrieved from: <https://comptroller.nyc.gov/reports/understaffed-underserved/>
 - xxi NYC Housing Preservation & Development. Report to the City Council: The Department of Housing Preservation and Development's Implementation of Local Law #1 of 2004 in FY2023. Retrieved from: <https://www.nyc.gov/assets/hpd/downloads/pdfs/services/city-council-lead-based-paint-report-fy2023.pdf>
 - xxii New York City Housing Preservation & Development. Lead-Safe Work Practices" Frequently Asked Questions. Retrieved from: <https://www.nyc.gov/assets/hpd/downloads/pdfs/services/lead-safe-work-practices-faqs.pdf>
 - xxiii United States Environmental Protection Agency. 2022, Jan. 21. EPA Affirms Building Managers Responsible for Lead-Based Paint Safety Requirements When Performing Renovations. Retrieved from: <https://www.epa.gov/newsreleases/epa-affirms-building-managers-responsible-lead-based-paint-safety-requirements-when>
 - xxiv New York City Housing Preservation & Development. Lead-Safe Work Practices" Frequently Asked Questions. Retrieved from: <https://www.nyc.gov/assets/hpd/downloads/pdfs/services/lead-safe-work-practices-faqs.pdf>
 - xxv New York City Comptroller. (2019, Sep. 26). Comptroller Stringer Investigation Reveals City's Systemic Failure to Protect Children from Lead Exposure. Retrieved from: <https://comptroller.nyc.gov/newsroom/comptroller-stringer-investigation-reveals-citys-systemic-failure-to-protect-children-from-lead-exposure/>
 - xxvi Ibid.
 - xxvii Ibid.
 - xxviii Warkerkar, T. (2018, Sep. 5) Landlords owe NYC more than \$1B in fines. Curbed. Retrieved from: <https://ny.curbed.com/2018/9/5/17822710/nyc-buildings-fines-kushner-housing-violations>
 - xxix New York City Health Code. Article 173. Hazardous Substances. Retrieved from: <https://www.nyc.gov/assets/doh/downloads/pdf/about/healthcode/health-code-article173.pdf>
- Title 28 of the Rules of the City of New York. Safe Work Practices. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYCrules/0-0-0-127143>

xxx New York City Department of Housing Preservation & Development. Lead-Based Paint Turnover Requirements. Retrieved from: <https://www.nyc.gov/assets/hpd/downloads/pdfs/services/lead-based-paint-turnover-requirements-faq.pdf>

xxxii New York City Administrative Code. Section § 27-2056.8. Violation in a dwelling unit upon turnover. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210587>

xxxiii Supra XII

xxxiii New York City Department of Health. Lead Poisoning: Information for Residential Building Owners. Retrieved from: <https://www.nyc.gov/site/doh/health/health-topics/lead-poisoning-information-for-building-owners.page>

xxxiv New York City Department of Housing Preservation & Development. (Dec. 2022). Get Ahead of Lead Briefing. Retrieved from: <https://www.nyc.gov/site/hpd/services-and-information/property-owner-bulletins/december-2022.page>

xxxv New York City Department of Housing Preservation & Development Lead Based Paint. Retrieved from: <https://www.nyc.gov/site/hpd/services-and-information/lead-based-paint.page>

xxxv The New York State Senate. Senate Bill S995B. Retrieved from: <https://www.nysenate.gov/legislation/bills/2023/S995/amendment/B>

xxxvi New York City Office of the Mayor. Mayor Adams Appoints Jean-Claude Lebec as Director Of Mayor's Office Of Risk Management and Compliance, Citywide Lead Compliance Officer. Retrieved from: <https://www.nyc.gov/office-of-the-mayor/news/387-24/mayor-adams-appoints-jean-claude-lebec-director-mayor-s-office-risk-management-and>

Sommerfeldt, C. NY Daily News. (2023, Oct. 30) NYC's "Lead Czar" Quietly Steps Down After 5 Months in Post to Work on Adam's Admin Migrant Crisis Response. NY Daily News. Retrieved from: <https://www.nydailynews.com/2023/10/24/nycs-lead-czar-quietly-steps-down-after-5-months-in-post-to-work-on-adams-admin-migrant-crisis-response-exclusive/>

xxxvii New York City Administrative Code. § 27-2056.11 Work practices. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210590>

xxxviii New York City. Environmental and Health Data Portal. Lead poisoning affects adults too. Retrieved from: <https://a816-dohbsep.nyc.gov/IndicatorPublic/data-stories/adult-lead/>

xxxix New York City Administrative Code. Section § 27-2056. Owners' responsibility to notify occupants and to investigate. Retrieved from <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210583>

xl New York City Administrative Code. § 27-2056.4(c) Owners' responsibility to notify occupants and to investigate. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210588>, https://www.hud.gov/program_offices/healthy_homes/enforcement/disclosure

xli New York City Administrative Code. § 27-2056.9(d) (e) Department inspections. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210588>

xlii New York City Administrative Code. § 17-186. Lead poisoning prevention in children. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210602>

xliii U.S. Department of Housing and Urban Development. Office of Lead Hazard Control and Healthy Homes. The Lead Disclosure Rule. Retrieved from: <https://intro.nyc/local-laws/2019-70>

xliv New York City Administrative Code. § 27-2056.17 Record keeping requirements. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYAdmin/0-0-0-210596>

xlv New York City Administrative Code. § 11-12 Additional Audits. Retrieved from: <https://codelibrary.amlegal.com/codes/newyorkcity/latest/NYCrules/0-0-0-124369>

xlvi New York State Assembly. A00434 Summary. Retrieved from: <https://assembly.ny.gov/leg/?bn=A00434&term=&Summary=Y&Actions=Y&Votes=Y&Memo=Y&Text=y>

xlvii Ibid.

xlviii The New York State Senate. 2023-2024 Legislative Session. Bill S2353A. Retrieved from: <https://www.nysenate.gov/legislation/bills/2023/S2353/amendment/A>

xlix Gould, E. (2009, Jul.) Childhood Lead Poisoning: Conservative Estimates of the Social and Economic Benefits of Lead Hazard Control. Environmental Health Perspectives. 117(7):11627. Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2717145/>

I New York City Department of Health. Lead Poisoning: Information for Residential Building Owners. Retrieved from: <https://www.nyc.gov/site/doh/health/health-topics/lead-poisoning-information-for-building-owners.page>

li Juarez v. Wavecrest Management Team Ltd., 88 N.Y. 2d 628 (1996). Retrieved from: <https://law.justia.com/cases/new-york/court-of-appeals/1996/88-n-y-2d-628-0.html>

lii New York City Housing Preservation & Development. Lead Based Paint. Retrieved from: Lead-Based Paint - HPD ([nyc.gov](https://www.nyc.gov))

New York City Housing Preservation & Development. Notice of Adoption of Rules Regarding Lead Poisoning Prevention and Control. Retrieved from <https://www.nyc.gov/assets/hpd/downloads/pdfs/about/lead-rules-2020-adopted.pdf>

New York City Housing Preservation & Development. Information Regarding the Implementation of Local Law 66 of 2019: Amendment to the Definition of Lead-based Paint under Article 14 of the Housing Maintenance Code. Retrieved from: <https://www.nyc.gov/assets/hpd/downloads/pdfs/services/lead-based-paint-threshold-faqs.pdf>

