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Healing Our Houses Will Cure Lead Poisoning Epidemic

Daniel Webster

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Healing Our Houses Will Cure Lead Poisoning Epidemic

Abstract

Two main obstacles hinder efforts to end lead poisoning in Buffalo. One, lack of knowledge in at-risk populations about causes, symptoms, and prevention, which puts people at greater risk and makes enforcement of current system difficult. Two, the poor condition of our houses makes repairs unaffordable to homeowners and discourages outside investment.

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Healing Our Houses Will Cure
Lead Poisoning Epidemic

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Healing Our Houses Will Cure Lead Poisoning Epidemic

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Executive Summary

Two main obstacles hinder efforts to end lead poisoning in Buffalo. One, lack of knowledge in at-risk populations about causes, symptoms, and prevention, which puts people at greater risk and makes enforcement of current system difficult. Two, the poor condition of our houses makes repairs unaffordable to homeowners and discourages outside investment.

To overcome these obstacles we must coordinate the efforts of health organizations and housing organizations in Buffalo. The Erie County Health Department and Buffalo's Office of Strategic Planning should create a network among government entities, hospitals, certified lead inspectors and workers, housing preservation corporations, housing and neighborhood revitalization organizations, and community organizations working on housing and lead poisoning issues. These groups should combine information about lead poisoning, housing court cases, housing preservation and rehabilitation work, and related information into a database. Here, people can see where lead poisoning occurred and where revitalization, preservation, demolition, and other activities are occurring.

Once such a database is constructed, a targeted effort can be coordinated to help owners and tenants make repairs and prevent poisoning. Community development corporations should be brought in to revitalize the neighborhoods targeted for lead abatement. Tenants, landlords, and homeowners will be more likely to live and invest in these revitalized neighborhoods.

Background

People used lead for a century or more as paint for houses, and our current housing stock is hazardous as a result. In 1978, the federal government banned the use of lead in paint. The vast majority of houses in Buffalo were built before this ban. The median age of residential buildings in the City of Buffalo is sixty-nine years oldⁱ. Furthermore, Buffalo built most of its houses during a period when pure lead was used as paint. Between 1900 and 1950, paint companies made and marketed pure lead with linseed oil for homeowners to paint their housesⁱⁱ. The poor economic conditions in Buffalo have decreased its population and decimated its housing stock, creating a dangerous situation.

Lead Paint

Lead is a neurotoxin, and lead poisoning is associated with behavioral and learning disabilities, brain damage, kidney disease, heart disease, weight loss, anemia, skeletal disorders, and even death. A correlation exists between lead poisoning and crime, as two-thirds of prison inmates in New York State have elevated blood-lead levelsⁱⁱⁱ. Children are more susceptible to lead poisoning than adults, but adults can experience symptoms such as memory loss, headaches, body aches, and damage to lungs, kidneys, liver, bones, and other organs. Lead remains in the body permanently. Inhaling lead dust from lead paint is the most common way to get lead poisoned. Eating lead paint chips is also responsible for many childhood lead poisoning cases.

Children who are lead poisoned require increased attention at school due to behavioral and learning disabilities, and as they get older their behavior can become

criminal. Most of the people affected by lead exposure are people of color with low incomes who live in urban areas.^{iv}

Lead poisoning imposes three types of costs on society: medical, educational, and criminal. Lead paint also imposes costs on property owners, because they have to take extensive precautions when renovating or making repairs. Occasionally, landlords vacate and abandon houses after discovering lead paint hazards, because they do not have resources or incentives to repair the houses and face too much liability if they continue renting them. Abandoned houses impose more costs on the City through decreasing property values, increased crime, sanitation problems, and eventual demolitions.

Buffalo Housing

Buffalo has the second highest poverty rate of cities in the United States.^v A century ago, Buffalo was one of the nation's richest cities. Numerous factors have contributed to the downfall of the City of Buffalo, including the shift from manufacturing to services in the United States and the outward migration of middle and upper class people to the suburbs. Increasing poverty and decreasing population have created a glut of abandoned and vacant houses in Buffalo. Housing abandonment destroys the value of nearby properties and reduces the attractiveness of the neighborhood to potential tenants, homeowners, and real estate investors. Existing property owners experience increasing risks of financial loss, decreasing the likelihood they will invest money to maintain or repair the houses. Without proper maintenance of roofs, siding, plumbing, and painted surfaces, lead paint can be disturbed by water leaks, structural deterioration, wear and tear, and insects or other pests. Once disturbed, lead paint is a health hazard.

Buffalo has over 20,000 vacant or abandoned housing units.^{vi} The City plans to demolish 5000 houses in the next five years, and the threat of increasing abandonment remains as “many are of frame construction and poorly maintained.”^{vii} Fifty-eight percent of Buffalo’s housing stock was built before 1940.^{viii} These old houses create a high risk of lead poisoning for their occupants.

In addition to decreasing population, other factors contribute to housing vacancy and abandonment such as predatory lending, loss of jobs, unaffordable medical care, house ‘flipping’, criminal activity, and mere neglect. A poor population living in old deteriorating houses presents Buffalo and Erie County with both a housing problem and a health problem. Given the housing and economic conditions in Buffalo, it is not surprising that the city has a very high rate of lead exposure in children.

Lead Poisoning in Buffalo and Erie County

According to the Empire Justice Center, nine out of 36 zip codes identified as high-risk for lead poisoning are in Buffalo, and approximately 400 children are poisoned every year in Buffalo.^{ix} That is more than any other upstate city. The Erie County prevalence rate of confirmed elevated blood levels is 10.9%, compared with a New York State rate of 5.8% and a national average of 4.4%.^x Erie County has approximately 160,000 houses built before 1950, and an estimated 20,000 houses are high-risk for lead paint hazards.^{xi}

Buffalo and Erie County cannot afford to allow these conditions to persist. It is economically and morally imperative to make a comprehensive effort to permanently solve the lead poisoning epidemic.

Current Efforts to End Lead Poisoning

EPA/HUD Lead Safe Work Practices and required disclosures

The Environmental Protection Agency (EPA) and the Department of Housing and Urban Development (HUD) regulate lead paint abatement activities and enforce federal lead paint laws. The Occupational Safety & Health Administration has similar regulations to protect workers who may be exposed to lead hazards. The EPA oversees the certification of lead paint inspectors, abatement workers, and abatement supervisors. They establish procedures for identifying hazards, cleaning lead paint chips and dust, and disposal of lead paint waste. Also, these agencies require landlords and renovators to give tenants and customers approved disclosure notices concerning the presence and danger of lead paint.^{xii} These regulations have increased public awareness and safety, even though the cost of training often deters contractors from engaging in lead paint abatement. The Federal Government, however, does not require property owners to conduct any form of lead paint abatement (except for properties owned or assisted by HUD, which are subject to higher standards that may require abatement in certain circumstances). Grants are available for local governments to conduct training, inspections, and public outreach^{xiii}.

Renovations or even minor house repairs can create hazardous lead dust, and people are often poisoned when lead paint is improperly removed. EPA and HUD require certain precautions known as lead-safe work practices. The Buffalo Municipal Code Chapter 261 requires the same precautions when working on lead paint. Approved lead-safe work practices are focused on reducing lead dust and preventing lead dust from

spreading. Certified workers wear protective equipment such as respirators, disposable coveralls, gloves, and goggles. The work area is thoroughly cleaned and quarantined, and a thick plastic cover is placed on the floor while paint removal takes place. A HEPA vacuum is used to collect lead dust and paint chips. After removal, the lead paint waste is still hazardous and must be handled according to local, state, and federal hazardous materials regulations. The work area, tools, clothes, and anything else in the room must be thoroughly cleaned or disposed once work is complete. Lead paint removal is expensive because of the high costs of specialized training, equipment, labor, transport fees, disposal fees, and potential liability.

Federal law does not require property owners to remove or encapsulate lead paint. The law simply requires disclosures of known lead paint, basic safety measures, and certification of people conducting lead paint abatement work.^{xiv}

New York State Mandatory Testing

New York State's major legislation is The Lead Poisoning Prevention Act of 1971, amended in 1993 (LPPA). This statute mandates screening children one and two years old for lead in their blood. Certain results trigger inspections, educational intervention, and mandated abatements under penalty of law. Administered by counties, the LPPA is responsible for the majority of lead paint inspections and mandated abatements in New York State. This health-conscious approach has helped reduce lead poisoning, but it cannot solve the problem. The legislation takes action after poisoning occurs and only mandates abatement when certain high levels of lead are found. If this approach can be supplemented with a housing focused approach that requires permanent

or long-term solutions, then we can prevent poisoning before it happens by improving the quality of the houses.

Only performing lead paint inspections and abatement after children are found with lead in their blood, is tantamount to using our children as ‘canaries in the coal mine.’ Also, the LPPA only requires a bare minimum of abatement work when high levels of lead are found in a child’s blood.

Erie County Inspections

State law mandates that all children 12 months old and 24 months old must be tested for lead in their blood, and the results are set to the County Health Department. If the blood-lead level is between 10-19 micrograms/deciliter (mcg/dl), then Erie County Health Department (ECHD) initiates an investigation. ECHD takes the following steps: 1) Contact the parents to educate them about lead poisoning and how to prevent it, and follow-up after 90-days. 2) Make a visual inspection of the property for deteriorating paint. 3) Notify owner of potential lead paint hazard. 4) Identify imminent health hazards and issue enforceable warning to owner for interim controls that stabilize lead paint. 5) Follow up with owner to confirm abatement has occurred. ECHD and owners work together to identify a plan of action and timeframe. If no action has been taken within specified timeframe, then the owner is brought into housing court for enforcement.

If the blood-lead level in a child is 20 mcg/dl or greater or two separate tests of the same child are between 15-19 mcg/dl, then a full investigation takes place. 1) Educate parents and follow-up after 90-days. 2) Room by room and exterior inspection with a XRF (X-Ray Fluorescent) device that instantly tests for lead. This equipment is expensive, but provides very accurate data instantly. They can send samples to a lab for

less cost, but the data will take time and they have to disturb the lead paint on every wall in the house. They also test the exterior of adjacent buildings. 3) 1 mcg/cm² or higher triggers a Notice of Demand against the owner. The Notice is a detailed report of the lead hazards and what needs to be done to abate the hazards. The owner is required under penalty of law to conduct necessary repairs.

Four Methods of Repair with Pros and Cons

Many people in the industry recognize two methods, interim controls and abatement. Abatement includes enclosure, encapsulation, and replacement. I have separated them out here to illustrate the differences and compare advantages.

1. Interim controls – Lead-safe work to maintain cracked, peeling, or chipping paint. This involves wet scraping and repainting or another approved method of maintaining or restoring paint to ‘intact’ status. Lead paint that is intact is not an immediate health hazard.

These controls fix temporary problems that are symptoms of a larger problem. The lead paint is deteriorating, because the house is deteriorating. Fixing the immediate lead paint hazard will not fix the problem, and more work will have to be done in the near future; however, this is usually all that is required of the property owner and is inexpensive.

2. Full Abatement – Completely removing all lead paint and repainting, or encapsulating with specialized coating (usually provides 20 years of protection).

This is more likely to fix the problem, but too often there are more problems than lead paint hazards such as a leaking roof or bowed walls or floors. Encapsulating is less

expensive than abatement, but it will require more work after the encapsulate has worn off or been disturbed. Completely removing the lead paint and conducting other repairs is the only way of permanently addressing the problem, but it may be the most expensive.

3. Enclosure – erecting a barrier between the lead paint and the environment, such as drywall on top of a lead-painted surface or new siding on top of lead-painted siding.

Again, this method will work for a period of time, but eventually the lead paint will have to be removed. This method can be expensive, as it requires major renovations, but in certain circumstances enclosure should be used, as it can improve the quality of the house.

4. Replacement – Remove components such as window frames, doors, door frames, and wall trim.

Replacement will solve the problem and improve the property, but replacing components of the house may be unnecessarily expensive. Removing the paint and repainting is less expensive and still prevents lead poisoning while improving the house.

I recommend removing lead paint with specialized lead paint removers when the components do not need to be replaced, and using replacement only when the components are damaged. A study should be conducted to find the most cost-effective lead paint removal method.

ECHD works with owners to specify a deadline for repairs, usually 1-3 months. If no action is taken within specified timeframe, then the owner is referred to housing court for enforcement.

Housing abandonment due to lead paint

Phil Queeno, the Senior Investigating Public Health Sanitarian for Erie County, reports that houses are sometimes abandoned during the inspection process. Erie County does not keep track of how many houses get abandoned or how many landlords fail to fix the lead paint hazards, but Queeno knows from personal knowledge that upon receipt of a letter from ECHD some landlords have vacated and abandoned their houses. In most of these cases, there were other structural problems and the houses were located in poor, blighted neighborhoods. These houses eventually end up on the demolition list.

Fines are issued against the owners, but are not always paid. The Buffalo City Housing Court only has jurisdiction in Erie County, but some other jurisdictions will enforce obligations set by Buffalo's Housing Court.^{xv} When the Court cannot exercise jurisdiction over the owner, the Court has the power to turn the property over to a receiver or sell it.^{xvi} Houses lost due to lead paint almost always have other problems, and the process from inspection to court enforcement is lengthy. Hence, the court will generally not be able to sell it. The City should give the housing court greater authority to take possession of houses and give them to housing organizations for rehab, if salvageable.

According to Housing Court Judge Henry Nowak, when an owner is brought into court, the required repairs almost always happen within a couple of weeks.^{xvii} Judge Nowak works with community organizations and government entities to provide grant and loan money to property owners for necessary repairs. This system has experienced much more success than the old system of simply issuing fines for building code violations. A coordinated effort of this type on a larger scale is necessary to fix Buffalo's housing problems.

Vacant and abandoned houses cause more housing problems. It is not clear to what extent, but lead paint contributes to this spiral of deteriorating housing conditions. Concurrently, the housing conditions contribute substantially to the lead poisoning epidemic in Buffalo. Two new programs are beginning to effectively address the crisis.

Lead Poisoning Prevention Program

Erie County is launching a new program call the Lead Poisoning Prevention Program (LPPP). This new program is an attempt at being proactive rather than reactive towards lead poisoning. Using funds from the State and Federal governments, LPPP will provide increased community and professional education concerning prevention, medical and environmental follow-up, and testing children up to age six instead of just two.^{xviii} This program is at an early stage, and it should be coordinated with efforts to revitalize Buffalo's housing.

City of Buffalo HUD Grant^{xix}

Buffalo received \$1.4 million from HUD to conduct lead paint abatement and lead poisoning prevention work. Combining efforts with existing Home Improvement Programs, Buffalo aims to test 125 homes and remediate 88 of them. They will provide owners with \$25,000 for rehabilitation and up to another \$15,000 for interim control assistance. Eight neighborhood community organizations, two faith based organizations, and Belmont Shelter Corporation are working with the City to implement this rehab and education program. The County should combine its resources with this network in order to expand the scope, efficiency, and impact of the lead hazard control programs.

Current Housing Revitalization Efforts

In order to effectively address lead poisoning, programs focused on addressing the health of children need to be coordinated with programs addressing the health of our houses.

Buffalo's Comprehensive Plan

In its Comprehensive Plan, Buffalo has set ambitious goals for housing revitalization. In addition to demolishing 1000 dilapidated houses each year, Buffalo has a budget of more than \$20 million annually for investing in residential neighborhoods.^{xx} The Plan admits that this budget is too small and past investments were made on a “random geographic basis.” They have organized the city into eleven planning communities and eleven Comprehensive Code Enforcement Areas to focus the delivery of housing programs. Buffalo also seeks public-private partnerships to leverage public funds, and The Plan points to the success of this strategy with the Lakeview Hope VI project, where the ratio of private to public funds was three to one.

Most significantly, The Plan discusses federally supported programs for repair, maintenance, and renovation administered by the Office of Strategic Planning's Division of Residential Development. This division works with a network of not-for-profit community organizations, and they assist approximately 350 units every year.

The LPPP and the City's Lead Hazard Control Grant Program should leverage this existing network, because they can combine resources to fix imminent lead hazards and also renovate the houses to prevent future lead hazards.

Office of Strategic Planning (OSP)

The OSP publishes an Annual Action Plan which outlines how approximately \$20 million of Community Development Block Grants (CDBG) and HOME Funds are to be allocated.^{xxi} In its plan, OSP has allocated CDBG funds for emergency rehab loan assistance, targeted housing revitalization, public housing renovations, and support public services that promote the health, welfare, and safety of vulnerable populations. Belmont Shelter was selected to administer HOME Funds for the City's Rehabilitation Loan Program, which provides loans to targeted neighborhoods for housing rehab and repairs of emergency conditions. The City also works with HUD, banks, and non-profits to leverage these funds and expand the capacity of housing programs.

West Side Community Collaborative (WSCC)

A good example of a community group working on housing is the West-Side Community Collaborative. WSCC is a non-profit group seeking to revitalize neighborhoods just west of Richmond Avenue. It is one of a number of smaller groups working on housing issues in Buffalo that is not mentioned in any of the City's plans. WSCC takes control of vacant and abandoned houses in order to renovate and sell them; its goal is community development through neighborhood planning and housing preservation. Harvey Garrett, who heads up WSCC, described the lead paint problem as "systematic" and an obstacle to anyone trying to preserve or rehab housing.

Groups such as the WSCC should be brought into the coordinated effort to end lead poisoning through housing revitalization work. They are already rehabbing houses and could use assistance for lead paint abatement, especially on houses that will likely be sold or rented to families with children.

Coordination

Create a Database

Significant coordination of housing rehab and development is already underway in Buffalo; however, there is no central source of information and planning that combines all the housing and lead poisoning prevention efforts. The Erie County Health Department and Buffalo's Office of Strategic Planning should create this database, because they are the center of activities in these two fields. Using Google Maps or another mapping software program, OSP should create interactive maps of Buffalo. On these maps, neighborhoods that are identified as high-risk for lead poisoning can be delineated, and areas that have been targeted by the City for revitalization can also be highlighted. Individual houses can be identified as already renovated, in progress, inspected, not inspected, and as places where lead poisoning has occurred. This database will increase the efficiency of targeted efforts, highlight areas for collaboration, and maintain easily accessible records of houses that need inspections or enforcement of ECHD Notices of Demand or housing court orders.

Furthermore, identifying where lead poisoning has occurred can lead to targeted efforts to prevent poisoning before it happens. For example, if several houses on a block had poisoning, then property owners in specific houses nearby can be contacted to allow inspections and be offered assistance from any number of grant or loan sources. An interactive map will make it very easy to identify potential lead hazards. These neighborhoods should be targeted by education efforts to raise awareness of lead paint hazards and encourage tenants and homeowners to seek assistance or contact their landlords to inform them of availability of assistance.

Combine Efforts in high-risk neighborhoods

The maps will highlight where LPPP targeted lead paint inspections are happening and where targeted community development is happening. These programs would organically compliment each other and should be coordinated. The maps could be used as a basis for redrawing lines of targeted neighborhoods so there is more overlap between lead poisoning prevention and housing revitalization.

With such a coordinated effort, less cases will fall through the cracks of an overwhelmed enforcement system. These efforts will bring more financial and technical assistance to property owners who cannot otherwise afford to take necessary precautions to prevent lead poisoning. A large scale effort will likely raise awareness of the availability of such assistance. Fewer property owners will abandon their houses, and more private investment will flow into housing rehab and development.

Further Research

What is the most cost effective lead paint abatement method?

The City of Buffalo should fund a small study to test the cost-effectiveness of different methods of permanent lead paint abatement. The City can engage Environmental Education Associates^{xxii} and certified contractors to conduct the study. Also, a study should be done to estimate annual costs associated with lead paint, such as medical, educational, law enforcement, increased cost of housing rehab, and the contribution of lead paint to housing abandonment. Then a cost-benefit analysis can be

done to determine the benefits and plausibility of a city-wide effort to permanently remove lead paint from Buffalo residences.

Owners are ultimately responsible for the condition of their houses, and normally the costs of lead abatement should be theirs to bear. Given the conditions in Buffalo, however, those costs are too much for most property owners in the city. Therefore, during implementation of any permanent removal plan, fair financial contribution from owners should be calculated and loan money used as much as possible to supplement grants.

ⁱ <http://www.city-data.com/housing/houses-Buffalo-New-York.html>

ⁱⁱ Presentation by Mike Hanley of the Empire Justice Center at the Get the Lead Out conference in Buffalo, NY on 03-07-2008

ⁱⁱⁱ Presentation at the Get the Lead Out conference in Buffalo, NY on 03-07-2008. Also see www.leadconnections.org

^{iv} Presentation by Mike Hanley of the Empire Justice Center at the Get the Lead Out conference in Buffalo, NY on 03-07-2008

^v 2005 Census figures; see <http://www.usccb.org/cchd/povertyusa/povfact6.shtml>

^{vi} City of Buffalo Comprehensive Plan (Ch. 1.4.3 *Housing and Neighborhoods*)

^{vii} *Id.*

^{viii} *Id.*

^{ix} Presentation by Mike Hanley of the Empire Justice Center at the Get the Lead Out conference in Buffalo, NY on 03-07-2008

^x www.leadconnections.org

^{xi} “Pollution rankings: lead hazards by county” at www.scorecard.org.

^{xii} Title X § 1018. Regs at 40 CFR §§745.100-745.119; 61 Fed. Reg. 9064 (1996)

^{xiii} <http://www.epa.gov/lead/pubs/grantmap.htm>

^{xiv} Go to <http://www.epa.gov/lead/index.html> for more information

^{xv} Pedersen, Robert, Chair, Atlantic-West Utica Block Club. “FAQ – Inspections, Property Research, and City Housing Court In Buffalo.” (2007). www.foreverelmwood.com – click Neighborhood Committees then click Info & Problem Solving.

^{xvi} *Id.*

^{xvii} In class presentation by Judge Henry Nowak

^{xviii} Erie County Health Department website: http://www.erie.gov/health/offices/dc_lead_prevention.asp

^{xix} www.buffaloleadfree.org

^{xx} City of Buffalo Comprehensive Plan (Ch. 1.4.3 *Housing and Neighborhoods*)

^{xxi} OSP Annual Action Plan: http://www.city-buffalo.com/files/1_2_1/SPlanning/AnnualAction/2008-2009_AnnualActionPlan/Action_plan_2008-2009_Final.pdf

^{xxii} EEA is a for-profit company that administers HUD funds for training lead inspectors and abatement workers throughout New York State. <http://environmentaleducation.com/>