



# Introduction

Lead exposure is often thought of as a problem that doesn't exist anymore in the United States, since lead paint (above a certain amount) was banned for residential use in 1978 and leaded gasoline was taken off the market in 1996. Yet, lead is still present in many homes across the country, as well as in other structures, environmental media, and products that can result in exposure. These exposures may cause irreparable harm to people, particularly children. One of the challenges in addressing and preventing these harms is the persistence of mis- and disinformation about lead and policies aimed at protecting communities from lead exposure.

Research and public health experts have observed what some have deemed an "infodemic" of health misinformation—and disinformation—in recent decades. This was particularly highlighted in the context of SARS in the early 2000s and COVID-19 in recent years. However, these challenges reach far beyond such pandemics. According to the Surgeon General of the United States, Dr. Vivek H. Murthy, "Health misinformation is a serious threat to public health. It can cause confusion, sow mistrust, harm people's health, and undermine public health efforts."<sup>2</sup>

This threat includes public health impacts related to lead exposure. Public health officials and others regularly encounter disinformation and misinformation when dealing with people exposed to lead and children with elevated blood lead levels. This dis/misinformation forms a barrier to individuals in seeking remediation for the underlying source or healthcare services for those exposed and results in harmful impacts to families and communities.

This policy paper will explain disinformation and misinformation, discuss the impact they have on lead poisoning prevention, detection, and abatement, and outline strategies that local practitioners are employing to address it.

# Background: What Are Disinformation And Misinformation?

The term disinformation is often used interchangeably with the term misinformation, but there is a key difference between the two—intent. Both terms refer to the sharing of false information, but misinformation is the sharing of false information without the intent to harm, in which the person sharing misinformation believes it to be true. While disinformation (sometimes called 'intentional misinformation' or propaganda) refers to knowingly sharing false information for gain—whether for financial gain, power, or something else. The information in both cases may be the same, but the intent is what distinguishes disinformation from misinformation. As discussed further below, we see both in public health efforts to address lead poisoning.

In recent decades, many have observed an increase in the rapid dissemination of misinformation and disinformation and its potential impacts on public policy, public health, and governance more broadly. The proliferation of information, including misinformation and disinformation, surrounding the 2003 SARS epidemic led to the coining of the term "infodemic," by journalist David Rothkopf—a combination of the words information and epidemic.<sup>4,5</sup>

The COVID-19 pandemic further and more recently highlighted the dangers of misinformation and disinformation and, unfortunately, provides an excellent example of the ability of how it can proliferate. At the start of the pandemic, much was not known about the infectious disease (a virus) and yet many people were sick and dying. An environment of fear developed that led people to more readily believe any piece of information that was shared that may help them stay healthy. If that information was also shared by those who were deemed to be experts (if not medical or infectious disease experts) or trusted sources, even more so. For example, if a world leader mentions ingesting bleach as a potential treatment, that may incline some to try it as a protective measure and result in causing them harm.

Dis/misinformation proliferated so broadly during the pandemic that the World Health Organization (WHO) developed a webpage dedicated to the "myths" surrounding COVID-19 including those related to prevention and cure. The myths included by the WHO were gathered from public health officials around the world, and fact-checked for misinformation and disinformation.<sup>8</sup> Some notable false "preventions" included ingesting bleach, adding pepper to your soup, and using vitamin supplements. Some of these myths had more negative potential impacts, as with ingesting bleach. While others, like adding pepper to food, may not be harmful in and of themselves, they were not protective against COVID-19 and may have given people a false sense that they were protecting themselves and others.<sup>9</sup>

It is critical in any public health situation or emergency that trust be established and maintained with the public. People generally trust those they deem to be experts and those they deem to be truthful. That trust leads to increased compliance with health or environmental recommendations. Sadly, trust in public health practitioners and agencies has been declining, partially as a result of misinformation and disinformation.<sup>10</sup>

A 2022 study led by Harvard University researchers found that only about half of respondents trusted physicians, nurses, and other health professionals a great deal when it came to COVID-19 information. And, the least trusting respondents believed information about COVID-19 was politically motivated or conflicted with other information that had already been shared. Efforts to improve trust and combat the effects of misinformation and disinformation may require new strategies and networks and a more comprehensive and cooperative public health communication infrastructure.

## Misinformation and Disinformation About Lead

Misinformation and disinformation may be presented to people in a number of ways in relation to lead and lead exposures. Lead is still present in many homes across the country (as well as in other structures) in flaking paint, dust, and lead pipes or fixtures that can enter drinking water, as well as in environmental media like soil in backyards that children may play in, and in other consumer products such as jewelry that can result in exposures. These exposures may cause irreparable harm to people, particularly children (see Figure 1 and 2).<sup>15</sup>

Those at risk for lead exposure—sometimes referred to as lead poisoning when at elevated levels in a person's blood—can receive related information in several ways. This can include word of mouth from friends and peers, as well as from landlords and other stakeholders. And this flow of dis/misinformation can occur before, instead of, or with greater frequency than verified information from medical and public health practitioners.

In one recent example in Buffalo, New York, a landlord admitted to falsifying lead disclosure forms for his nearly two dozen properties. Lead disclosure forms are required by the Residential Lead-Based Paint Hazard Reduction Act of 1992 under Section 1018. This law requires the disclosure by property owners of known information on lead-based paint and lead-based paint hazards prior to the sale or lease of most housing built before 1978. The violations of the law in this case were found to have resulted in instances of childhood lead poisoning. In response to being charged, the landlord entered a felony plea, which resulted in a fine of \$250,000 and up to five years in prison. This case was not a singular instance, unfortunately, but was reflective of broader patterns in the city (and in other communities) of repeated violations by some property owners and of the disproportionate impact on those more marginalized residents.

Still others who share disinformation may use strategies to try to influence people's beliefs. They may seek to understand people's fears, their relative knowledge and ignorance concerning not only public health but related laws and rules, as well as their means (or lack thereof) to take action against violations of those laws and rules.

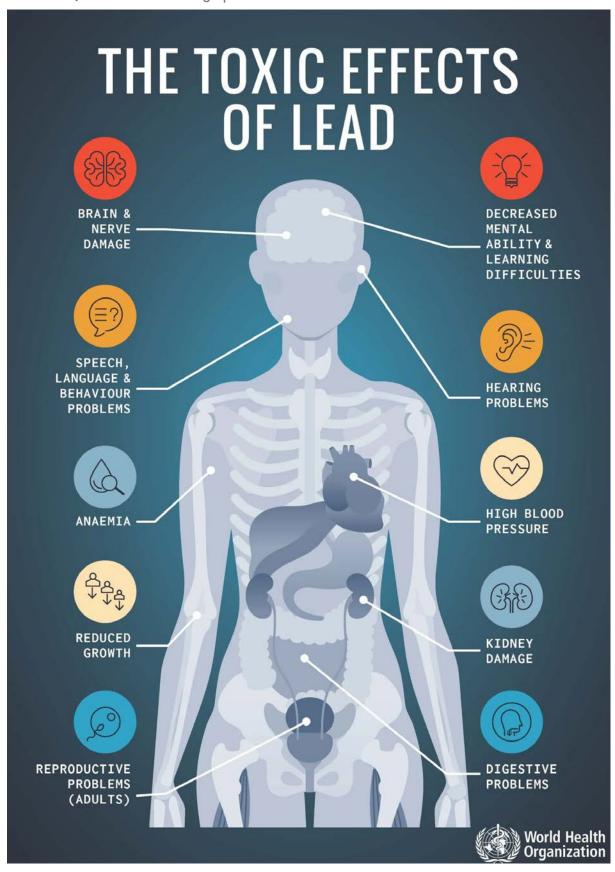
Additionally, those seeking to spread disinformation about public health may try to discredit or cast doubt on existing scientific research or produce science that bolsters their own claims.<sup>19</sup> Finally, those spreading disinformation may try to influence a policy or political agenda as happened in 1933 when the Lead Industries Association, a coalition of the major lead companies of the time, launched a campaign to prevent the prohibition of lead pipe sales. Its approach included encouraging municipalities to make the use of lead pipes mandatory in city codes as well as sponsoring research to falsely 'debunk' the already known ill effects of lead exposure.<sup>20, 21</sup>

In contrast to these forms of intentional disinformation, some individuals or institutions may share misinformation unknowingly with those at risk. This could include well-intended neighbors sharing the false idea that because they live in homes built after lead paint was banned, they don't have to worry about lead exposure. While it may be

FIGURE 1 | World Health Organization Infographic on Lead Exposure



SOURCE: "Chapter 2. Routes of Lead Exposure, Toxicology, and Societal Costs of Lead Exposure," in Wisconsin Childhood Lead Poisoning Prevention and Control Handbook for Local Public Health Departments (Wisconsin Department of Health Services, September 2024), <a href="https://www.dhs.wisconsin.gov/publications/p00660-2.pdf">https://www.dhs.wisconsin.gov/publications/p00660-2.pdf</a>.



SOURCE: "2021-cde-who-toxic-effects-lead-infographic-en," North Carolina Health News, 2021, https://www.northcarolinahealthnews.org/2021-cde-who-toxic-effects-lead-infographic-en/.

less likely for them to be exposed as a result of certain uses (like lead paint), it may be just as or more likely for them to be exposed as a result of other exposures like contaminated drinking water as a result of lead service lines that connect homes to water systems or other plumbing fixtures and materials. As covered in a previous report by the Rockefeller Institute,<sup>22</sup> there are an estimated 9.2 million lead service lines (LSLs) that remain in use in communities across the United States, including nearly 500,000 in New York State.<sup>23</sup>

Consequently, to effectively counter misinformation and disinformation, it is important to be aware of the common myths surrounding lead, potential sources of exposure, and policies and programs that help address those sources and exposures. In addition to the myths above, these often include:

- The false idea that lead is only present in paint chips, so if your paint is intact there is no problem.
- The assumption that home inspections done when buying a house will identify all potential lead hazards. And, that any contractors hired to renovate or perform other work are aware of what needs to happen to abate lead.
- Some people who are parents have also been told the false (and terrifying) idea
  that if their child has an elevated blood lead level, Child Protective Services
  might be called and their children will be taken from them or that they will be
  considered bad parents. More broadly, people may feel judged if they allow
  someone into their home to inspect for lead. This fear prevents some from
  seeking the help they need.

## Potential Solutions from the Field

Addressing the dis- and misinformation about lead requires enforcement of existing and potentially new laws and regulations, as well as education and communication about lead hazards at home and in the community. The potential solutions noted below have been observed through contact with healthcare providers, contractors, landlords, homeowners, renters, educators, and community partners with whom this author has come into contact through her role as a New York State senior public health fellow placed with a county health department.

# **Accountability**

Many people who rent may not know what laws exist to help protect them from lead exposure. Likewise, while the onus is on the homeowner to know the law, they may not always be completely aware of particular aspects of a law or understand whether or not they are in full compliance, while others may be more knowingly negligent.

In 2020, State Attorney General Letitia James and Mayor Byron Brown filed suit against individuals and companies in Buffalo who repeatedly violated county, city, state, and federal laws by not protecting their rental properties from lead-based paint hazards. The group included more than 150 single- and two-family homes. Most of

# Programs and Resources to Prevent Lead Exposures in New York

Many programs, resources, and funding opportunities are available for localities, homeowners, and others to understand the risks of lead exposure, help mitigate the impact of disinformation and misinformation, and assist with detection, prevention and abatement.

The New York State Healthy Neighborhoods Program (HNP)<sup>24</sup> is one example of a program that provides resources to counties to offer in-home assessment and interventions for a number of home environmental safety issues including lead. The program is voluntary and allows residents in high-risk areas as identified by housing, health, and socioeconomic data from the US Census or other data, to have a no-cost home inspection to assess environmental health and safety concerns. Problems may be identified and a member of the HNP may provide education or other resources like referrals to reduce household hazards. Childhood lead poisoning prevention is one of the four areas targeted by the program. The visits are done in a nonthreatening or nonjudgmental way. HNP inspectors assess the home without fear of reprisal. That is clearly communicated in the program's marketing materials.

Other centers, networks, and expert councils provide medical expertise and resources to healthcare providers and policymakers on lead exposure. The New York State Occupational Health Clinic Network helps those exposed to lead in the workplace. The New York State Children's Environmental Health Centers provide services and resources to and through community partners, including environmental health screenings, education, training, communication, and other programs. And, the Advisory Council on Lead Poisoning Prevention provides guidance to the State Department of Health regarding plans, policies, and services related to childhood lead poisoning.

The US Housing and Urban Development (HUD) offers several grants to help states, cities, counties, and other entities with respect to education, inspection, and abatement of lead hazards. Several counties in New York State have received HUD grants, including Chautauqua County (Lead Hazard Reduction Grant),<sup>26</sup> Cattaraugus and Allegany Counties (working collaboratively on a Lead Capacity Building Grant),<sup>27, 28</sup> and Broome County (Lead Capacity Building Grant).<sup>29</sup> These grants allow recipients to train contractors in abatement, communicating the hazards of lead and countering disinformation and misinformation, as well as developing community partnerships to ensure lead hazards are reduced in the community.<sup>30</sup>

In 2023, New York State implemented the Leading in Lead Prevention Pilot Program providing funding to communities of concern outside of New York City. Additionally, that year New York State Public Health Law was amended to include a provision that "owners of dwellings with two or more units, built prior to 1980" register any rental units and certify them to be safe from lead hazards every three years.<sup>31</sup> The pilot program has set aside \$20 million to eligible property owner applicants for help in lead hazard remediation in the rental properties including securing building permits and development of contractors.<sup>32</sup>

In 2024, New York State Governor Kathy Hochul announced \$90 million in funds awarded to replace lead service lines, or pipes connecting residences to the water main, through the federal Bipartisan Infrastructure Law (BIL) and New York State's Water Infrastructure grant program.<sup>33</sup> These funds specifically target historically disadvantaged communities, including communities that have high poverty and environmental justice communities. In total, the federal funds allocated to New York for lead service line replacement under BIL amount to roughly \$116 million annually over five years (beginning in 2024).<sup>34</sup>

those homes are in low-income communities of color. The violations include housing code violations conducive to lead poisoning or for chipping, peeling, or deteriorating paint as well as providing no lead disclosure forms or false disclosures to tenants.

Enforcing existing laws and communicating violations helps to reinforce to homeowners and landlords the importance of lead hazard remediation. It also communicates to renters that landlords will be held accountable for violations and that lessees have an outlet for grievances.

# **Partnerships**

Perhaps one of the most effective ways to deal with misinformation and disinformation related to lead hazards is through community partnerships. We know that strengthening community and communication engagement and public communication are key in this effort.<sup>35</sup> Connecting with affected community members to allay fears and increase trust is instrumental in the fight against lead hazards.

Many counties and institutions or organizations form lead coalitions to facilitate partnerships. The Finger Lakes Coalition to Stop Lead Poisoning, for example, is based out of the University of Rochester and includes Chemung, Livingston, Ontario, Schuyler, Seneca, Steuben, Wayne, Monroe, and Yates counties.<sup>36</sup> The Lead (Pb) Smart Partnership Coalition in the Southern Tier of New York State comprises Chautauqua, Cattaraugus, and Allegany Counties as well as the Seneca Nation of Indians.<sup>37</sup>

Coalitions often apply for grants, provide outreach to physicians' offices and other partner organizations, and host symposia and/or conferences to educate the public and others about the hazards of lead poisoning. Coalitions share information via word of mouth, through websites, and via social and traditional media. Coalitions' membership should include representatives from areas of the community best able to address the misinformation and disinformation including public health and other health professionals, code enforcement officers, government officials, educators from elementary through higher education, community-based organizations, and homeowners.

People often have some trusted groups or organizations in their community that they may reach out to for help even if they do not trust some public entities that might otherwise provide interventions on lead. Developing partnerships with these community outreach organizations can help to safeguard children and families who may otherwise fall through the cracks.

In Cattaraugus County, for example, the County Department of Health partnered with a local nonprofit, Operation Warm Hearts (OWH). OWH provides new clothing, hygiene products, and school supplies to low-income families. The nonprofit is set up like a store allowing families to "shop" for clothes and school supplies in a non-healthcare setting. Through this partnership, the County Department of Health was able to set up a table at the store to provide blood testing for lead for children under five years of age. The families coming into the store had already developed a relationship with OWH and trusted its volunteers. When healthcare professionals were present, people commented that it was not your typical healthcare setting and

that the children and parents felt more relaxed and comfortable. It also provided an opportunity to share information with families in a nonthreatening environment. This model is being replicated by the Healthy Community Alliance, a nonprofit dedicated to improving healthcare in rural communities in Western New York, in partnership with the Cattaraugus County Department of Health at some of its outreach events.

### Training and Education

Many homeowners may also incorrectly believe that all contractors are familiar with lead hazards and are able to abate them. The number of contractors who are certified in lead abatement also does not meet the needs of the homes that require abatement. Educating the public and increasing the number of certified lead abatement contractors will help to increase the number of homes able to be abated for lead. Several grants including HUD Capacity Building and Lead Hazard Reduction Grants allocate money for grantees to ensure contractors are trained within their service areas and/or counties. As previously mentioned, Cattaraugus and Allegany Counties, Broome County, and Chautauqua County are implementing HUD Grants and have been able to start offering training in their respective counties.

Educational institutions that offer vocational training are integral partners in providing lead abatement certification. Educating the public about available resources and services regarding lead, including abatement, as well as how to recognize misinformation and disinformation can help to prevent exposures resulting from untruths. Collaborating with programs like Head Start on educational efforts, for example, additionally allows us to reach the most vulnerable children and families to better prevent such exposures. This type of trusted program may be instrumental in connecting those most at risk with the resources they need to maintain safe homes.

### **Provider Outreach and Education**

As noted above, people may not trust healthcare-related entities like county or tribal health departments or they may not have access to health insurance or a primary care provider to test blood lead levels. Some healthcare providers also do not know the current standards and guidance on blood lead levels (BLLs) and may be using outdated ones.

Outreach to provider offices and the development of materials to share with staff as well as patients is one step to addressing this problem. The Lead (Pb) Smart Partnership Coalition, for example, held a dinner in May 2023 that was open to healthcare providers and their staff to share information about lead poisoning, which counted towards required continuing medical education credits. The dinner also served as a way to reward and recognize those providers who were going above and beyond in testing and identifying children with elevated BLLs and also highlight physician best practices. While it is too soon to determine if the dinner had an impact on provider testing, this is being tracked.<sup>38</sup>

Other partnerships have also used events to highlight impacts and best practices. This includes the Finger Lakes Coalition to Stop Lead Poisoning's annual conference related

to lead and for healthcare providers and their staff.<sup>39</sup> The Lead (Pb) Smart Partnership's recent conference for community outreach organizations was attended by over 100 practitioners in the Western New York region. The conference conferred awards on those physician practices and community partners in Chautauqua, Cattaraugus, and Allegany Counties and the Seneca Nation who have been instrumental in identifying children with elevated blood lead levels. These provider outreach and education events are an important opportunity to share ideas. For example, the Allegany County Department of Health and several of its partners work with home improvement stores to offer discounts to those who need to abate their homes but may not be able to afford to do so. Discounted products include paint, cleaning supplies, and windows, to name a few.

The examples above highlight how accountability, partnerships and partner development, training and education, and provider outreach work individually and in combination to combat the disinformation and misinformation surrounding lead hazards. Continued state and federal resources and the development of further policies and programs to support such efforts can help address and prevent lead exposures and the associated misinformation and disinformation.

## **Endnotes**

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- 39 "Finger Lakes Coalition to Stop Lead Poisoning," U of R Medicine Golisano Children's Hospital.



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