

Final Service Learning Assignment — Cincinnati Health Department

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The mission of the Cincinnati Health Department is “to ensure access to quality services and to improve community health and wellness,” in order to protect and improve the health of Cincinnati residents.¹ One initiative in pursuit of this mission is the Lead Poisoning Prevention program. The hazards of lead exposure, particularly the risk of nervous system damage, are widely known in the medical community.² However, although lead paint was banned in 1978, it persists in many locations in the Cincinnati area, constituting a potential health risk for residents. For instance, children and caretakers may be exposed to contaminated paint and pipes in lower income housing and public spaces such as playgrounds. Elevated blood lead levels in children remain a significant health problem in Hamilton County, with the risk varying among different neighborhoods (Figure 1).^{3,4} One of the current goals of the Cincinnati Health Department is to prevent lead poisoning by reducing socioeconomic, regional, and racial disparities in risk of exposure.

Social determinants of health (SDOH), such as lack of access to healthcare, food deserts, and unsafe housing, can make it difficult for Cincinnatians to thrive. One of the ways that the CHD and its partners address the built environment as a SDOH is by assisting with lead testing, remediation, and when necessary, relocation of families to avoid lead exposure. This social determinant is strongly tied to socioeconomic status, as those of lower SES are more likely to live in older, lead-contaminated homes and areas of greater lead pollution in soil or dust. Another SDOH addressed by the Health Department’s lead program is education. Improved education of the community, and especially parents/caretakers, can help prevent lead exposure in children, who are most vulnerable to its effects. This is also the area we were asked to help with for our service learning project last year.

The COVID-19 pandemic has impacted social determinants of health across Cincinnati in various ways. For example, according to a 2021 survey, close to 1 in 4 Cincinnati residents have experienced financial hardship as a result of the pandemic and its economic impacts.⁵ For many, this may have exacerbated existing health risks and disparities, such as lack of access to nutritious food. Nearly 46% of residents live in areas with limited access to supermarkets, 72% of whom live in low-income neighborhoods. Now, 3 in 10 adults in Cincinnati are considered food insecure. In addition, the need for mental health services has increased, likely related to social isolation and stress caused by the pandemic. Unfortunately, access to this care remains limited for many in the community.⁶ Another 2021 survey found that roughly 1/3 of adults in Cincinnati reported that their mental health had worsened as a result of the pandemic, and 16% felt that their physical health had worsened.⁷

With the emergence of COVID-19, increased access to healthcare and prevention services, especially among low-income communities, has been paramount. In response to this need, the Health Department created a task force focused on vaccinations and other public health safety measures. They aimed to increase COVID vaccination rates and decrease disparities through community outreach and promotion, education on the benefits and risks of the vaccine, and free public vaccination events. These services, as well as providing access to personal protective equipment, have been essential areas for intervention to reduce the spread

of COVID-19. Additionally, school planning has helped to keep children, and by extension those around them, safe from contracting COVID-19. This initiative focused on helping children learn from home during isolation, and later aimed to ensure proper protection when schools resumed in-person classes.⁸

Though this work was critically important for public health, it diverted some resources and focus from other important areas. Moreover, with COVID-19 rates still high, volunteering experiences were limited because of health concerns for both the volunteers and workers of the health department. We were unable to visit the Health Department in person due to COVID-19. This affected our ability to engage and volunteer with our partner. Typically, students would go in small groups to visit the Health Department and “shadow.” This would have given us an opportunity to see the day-to-day functioning of the department and to identify areas in which we could make the greatest impact, as well as more easily connect with contacts within the department. Without this opportunity, we ended up creating a project with an additional community member: Roberts Academy. Although we encountered roadblocks along the way, we were able to demonstrate perseverance and flexibility to accomplish our goal.

We as medical students have the opportunity to educate city officials on the significance of lead poisoning and advocate for increased support of lead poisoning prevention programs. The Board of Health meets the 4th Tuesday of every month. Questions may be submitted to the Board and there is time for public comment at the end of each meeting.⁹ The Board of Health is directly tied to the Cincinnati Health Department, so we already have a direct line to people that make these decisions. This forum would be a good place to start in order to raise concerns to government entities in Cincinnati.

The Cincinnati City Council is the highest legislative body in the city, and may provide another opportunity for change. Registration for time to give a public comment is allowed, so this would be another place in which students and physicians can advocate to elected officials. There are also subcommittees within the council that may provide more opportunity to have an open dialogue about the needs of the community. In the public health realm, the most pertinent of these include the Public Safety & Governance Committee and the Healthy Neighborhoods Committee.¹⁰

One specific initiative currently in need of support is the Cincinnati Health Department Childhood Lead Poisoning Prevention Program. This program utilizes a federal grant from the Department of Housing and Urban Development. It aims to help control lead paint, dust, and soil hazards in residential properties. If an individual owns a residential property built before 1978, they are eligible for the Lead Paint Hazard Control Program.¹¹

Through our discussions with families who participated in this program, we learned there is room for improvement in how the Cincinnati Health Department engages with and supports affected families. For example, one parent shared with us how they felt disrespected and were made uncomfortable by most people from the health department’s lead program who visited and entered their home. They perceived the house cleaning tutorials provided by the health department as critical and disrespectful, suggesting that the CHD thought they did not know how to clean their own home properly. Moreover, they felt some visits did not even provide any helpful information, as the educators simply repeated information from previous sessions.

We believe that a potential measure to improve home visits for affected families is for the health department to find ways to adapt their messages to the needs of each family, reinforce

cultural competency training, and include nutrition as a critical part of the home education sessions. Family feedback should be solicited at each visit to determine what is needed and what improvements can be made at the next session.

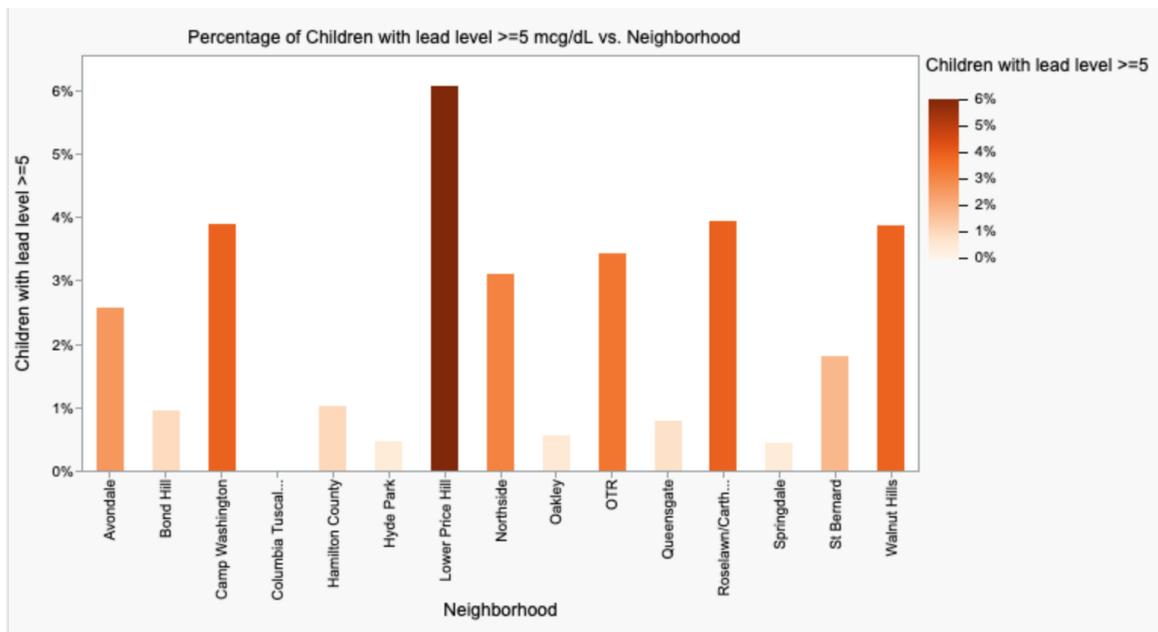


Figure 1. Price Hill has the highest percentage of children with blood lead levels above 5 ug/dL of all neighborhoods in Cincinnati. (Source: Environmental Justice and Childhood Lead Exposure in Hamilton County Ohio, 2020)

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