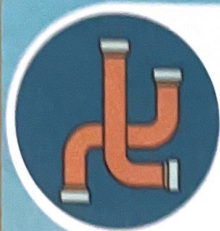


LEAD PIPES

UPLIFT TMAT

Problem Statement:

Lead poisoning in Chicago's water system is adversely affecting predominantly black and latino communities.



Problem Data

According to the analysis, "They found that nine of the top 10 zip codes with the largest percentages of high test results were neighborhoods with majorities of Black and Hispanic residents and three were dozens of homes with shockingly high lead levels. One home in the majority-Black neighborhood of South Chicago had lead levels of 1100 parts per billion (ppb) - 53 times the Environmental Protection Agency (EPA) limit of 10ppb."

According to a Guardian analysis of a City of Chicago data trace, "One in 20 tap water tests performed for thousands of Chicago residents found lead, a neurotoxic metal, at or above US government limits."

Solution

The best solution is to put water filters on all the pipes. It's the best because it's efficient and a cheaper option than replacing all of the lead pipes.



Solution Data

In a study titled "POU water filters effectively reduce lead in drinking water" a demonstration field study in Flint, Michigan, The Point Of Use activated carbon block filters in reducing lead concentrations. The study found that properly installed and maintained POU filters, certified under both NSF / ANSI 53 (for total lead) and NSF / ANSI 42 (for fine particulate), can protect all populations, including pregnant women and children, by reducing lead in drinking water to levels that would not result in a significant increase in overall lead exposure.

Microsoft

Microsoft can help support the city of Chicago implement our solution in many ways. Microsoft can support a hydraulic of the leaks of Chicago. They can have an educational booth which provides QR codes and links to educational materials to teach people about the issue. The materials can include information about the effects of lead in water, water test kits, and the importance of using water filters to keep the drinking water safe. To reach people outside of this particular event, Microsoft can utilize their Dynamics 365 marketing to spread awareness throughout Chicago. In addition to educating, Microsoft can also provide QR codes or links in social marketing campaigns that could lead to a Microsoft funding page that could receive interested residents or gather address information for delivering complimentary water testing kits for homes. At the event, Microsoft can also utilize their experts to speak at the event or host a webinar on Microsoft Teams. In some ways to support our solution, Microsoft can utilize all technology like VR sets, tablets, or computers.



This money can be used to provide water filters to residences in the city. The water filters should be prioritized for Black and brown people whose homes are most impacted by lead water lines.

The Best Solution

This is the best solution because Microsoft can help educate the community on the high levels of lead poisoning while also raising money to provide low income families, who are most affected by this problem, with water filters.

