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Fairchild Challenge #4 Environmental Justice: In the News

13 February 2025

**The Environmental Effects on Children's Health
in Low-Income Neighborhoods of Pittsburgh**

In the past fifty years a rise in childhood chronic conditions has been recorded. These conditions include, but are not limited to, asthma, obesity, and various neurodevelopmental disorders, and low-income communities, specifically in the Rust Belt, are where the highest concentrations of these diseases are recorded.

This phenomenon can even be recorded in local Pittsburgh communities. One study conducted by State Impact Pennsylvania reports, "Pittsburgh-area children living near steel mills, power plants and other large sources of pollution had 'nearly triple' the national rate of childhood asthma, according to a new peer-reviewed study"(Frazier). The article also notes that said areas facing this issue are low-income and largely populated by minorities. This claim is supported by a study from the National Library of Medicine, which sampled from Allegheny County neighborhood populations, which found that asthma disproportionately affects black people. The article states that institutional racism has historically redlined and forced large portions of the African Americans, along with other racial minority populations, to live in low-income areas with higher levels of pollution.

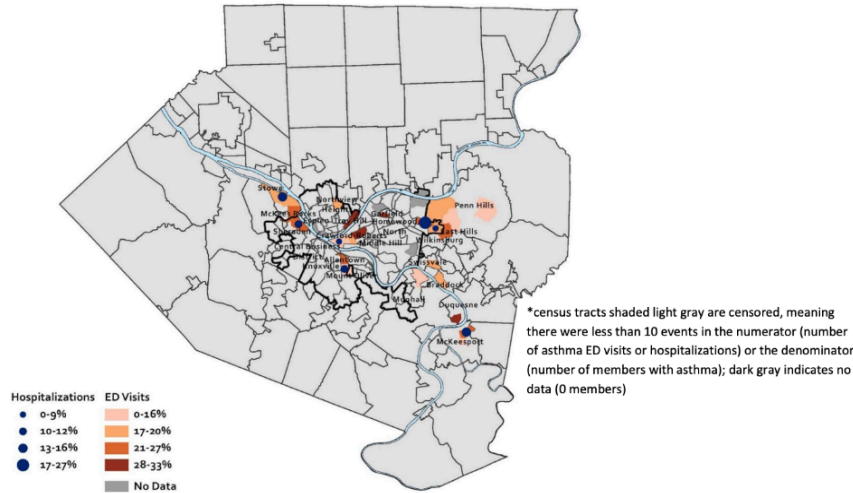
In a 2014 Allegheny County Teens Survey, it was found that 27% of black teens reported suffering from asthma, whereas 20% of white teens reported suffering from asthma. This statistic reinforces the claim made by Study Impact Pennsylvania that childhood asthma affects

minorities more than it affects white people, even within the same city. It was also found, by an Allegheny County Task Force Report from 2019, that children living in Homewood are the most likely to be hospitalized for severe asthma attacks. This is conveyed in the graph below.

2019 Asthma Task Force Report

The greatest percentage of members with asthma having at least 1 ED visit occurred in Duquesne and Pittsburgh neighborhoods of the Hill District, Troy Hill, Garfield, and Homewood. Within these areas, between 28-33% of children with asthma went to the ED in 2017. Homewood was also the only community in the highest quartile of hospitalizations, with 27% of children with asthma being hospitalized in 2017.

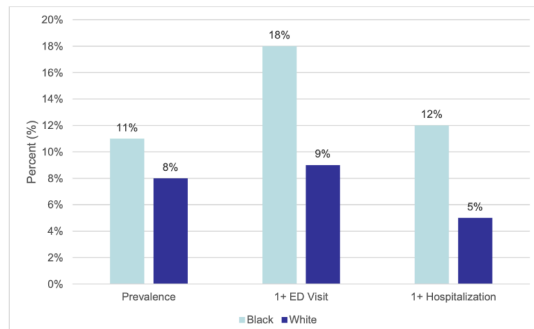
Figure 9. Percent of Members (UPMC, Gateway, Highmark) with Asthma and at Least 1 ED visit or Hospitalization in 2017 by Census Tract *



Homewood has considerably higher poverty rates compared to other areas of Pittsburgh and is also over 90% populated by black people. The same 2019 Allegheny County Task Force Report also specifically reported on the racial disparities of these hospitalizations, further backing the claim that asthma caused by environmental factors disproportionately affects racial minorities. These statistics are represented in the graph below.

While 11% of black Medicaid members ages 0-18 and 8% of white Medicaid members have asthma, black Medicaid children with asthma are more than twice as likely to have at least 1 ED visit or hospitalization. Race data for commercial members was not available, so disparities could not be assessed.

Figure 8: Pediatric Asthma Prevalence and Service Utilization Among Members (UPMC, Gateway, Highmark) Ages 0-18 by Race for Medicaid members, 2017



Recall that the reason for this racial disparity, in asthma caused by air pollution, is due to historical redlining that is still present in the institutional racism faced by people of color today. Due to this racism, both historical and current, people of color are often forced to live in poor communities. These communities are frequently located near factories that release emissions into the air that are harmful to both the humans and the ecosystems of Pittsburgh. While this air pollution can worsen pre existing asthma in children, it can also be the cause of it, and the fact that asthma is the number one chronic illness in children shows how prevalent of an issue this is.

The study done by State Impact Pennsylvania is supported by peer reviewed evidence and statistics that cannot be argued with. The lead author of the study, Dr. Gentile, says that this situation can be improved if action is taken and the release of air pollution is decreased. Discussion is the first step in making situations like this better, and the effects of this issue are not being discussed nearly enough. It is important to look into these topics further, find out who they are affecting the most, and take action by advocating for change or even just educating others about it. This is not some distant issue; it affects Pittsburgh and its people, and if these steps are taken then improvements might be made to the community and to the lives of the people within it.

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