

## LC#4 People Working Cooperatively

People Working Cooperatively (PWC) serves 19 counties across Ohio, Kentucky, and Indiana. Through a variety of community services, PWC focuses on environmental health via home improvement. Their mission is founded upon the belief that housing is a key social determinant of health and therefore, an essential mechanism to prevent the presentation and exacerbation of numerous chronic diseases. In 2020, PWC participated in just under 6,000 services to homes within our community. The vast majority of clients were those with income at or below 30% of the median income and/or over 60 years of age. Services included energy education and conservation, plumbing, furnace/AC repair/replacement, roofing and gutters, structural services, electric, accessibility, lead remediation, and general volunteer services. These services accomplished by PWC are offered at no cost to clients, funded fully from grants from businesses, donations, and other local organizations. This allows PWC to remediate crucial environmental health risks that would otherwise serve as a financial burden to families and individuals alike.

Collaborating with People Working Cooperatively, we focused on asthma triggers in the home and the ways in which PWC could provide education to combat these health disparities. In addition to their hands-on services, they also provide educational services for homeowners. Some of these topics include lead poisoning prevention, fall prevention, and asthma exacerbation and prevention using strategies based on improving the condition of the home. While PWC has established lead poisoning and fall prevention programs, they are currently developing an innovative asthma risk reduction program.

Due to their target population of low-income homeowners, the COVID-19 pandemic led individuals living in poverty, with disabilities, renters, and the elderly to be disproportionately affected. COVID severely limited PWC's reliance on volunteers to carry out services, their ability to enter the home safely, and provide education regarding lesser known home safety topics. These limitations did help us to identify the critical avenues by which PWC carries out services designed to accomplish their mission:

- Housing services and volunteer programs
- Implementation of education programs such as the asthma trigger reduction program
- Mistrust of health information in the wake of COVID news cycles, affecting PWC's educational programs
- Financial ability to provide optimal services to their community

- Exacerbation of communication barriers between PWC and their target population which includes COVID-susceptible groups such as the elderly, isolated, those with chronic health conditions, and people of lower socioeconomic status

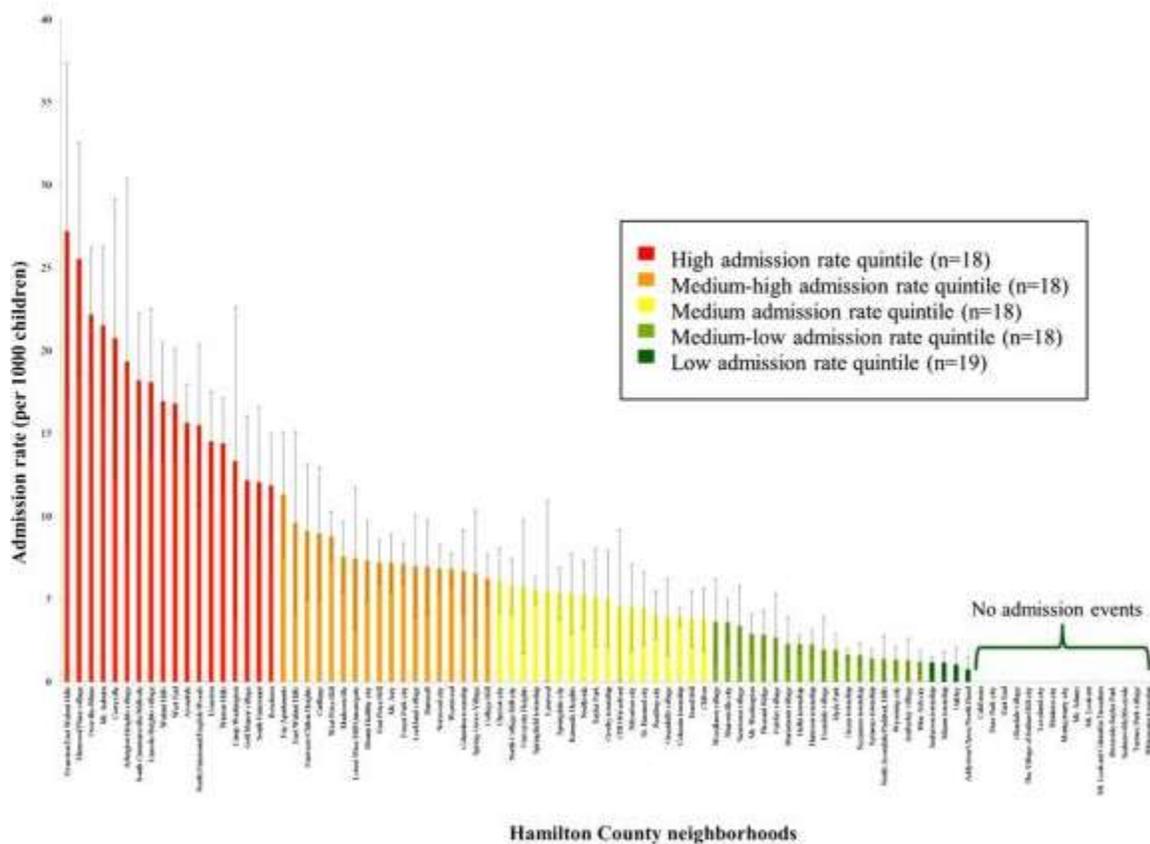
Housing is a social determinant of health that impacts the Cincinnati community and the population PWC serves. In conjunction, low income neighborhoods are disproportionately affected by housing inequalities that are manifested in their overall health. Sub-optimal living conditions exacerbate health disparities, especially in lead toxicity, asthma, and fall risks. Housing, income, and health care are all contributors to the negative outcomes seen in Cincinnati communities, and there has been insufficient efforts to improve the quality of living spaces and therefore treat medical conditions. With the onset of COVID, PWC faced several challenges with community outreach and addressing housing service needs. PWC has had to decrease the amount of homes they provide service to, and as a result, disparities in healthcare are exacerbating in low-income communities. In order to properly begin addressing these disparities, our focused was to increase education on the home environment and health to enable community members to address problems in their home.

Over the past year, we have helped PWC create a variety of educational materials focused on addressing asthma triggers in the home. These included a presentation for healthcare professionals, a report that was used to help secure funding for renters, and a display board design that PWC will use in their Innovation Center for community members. Through our efforts, we determined that there is a large discrepancy between funding allocated to asthma reduction for renters vs homeowners. Therefore, our focus this year is to increase the funds available for renters. Within the community that PWC serves, they are hindered significantly when trying to advocate for and serve the renter community. PWC has hit significant roadblocks with funding and outreach in this specific subset of the community, as it is increasingly difficult to work with tenants and landlords. PWC has a much harder time receiving external funding for renters. Ultimately people who are renting their homes have a more difficult time advocating for themselves and their families, as they may risk eviction when addressing housing concerns to their landlord. This barrier to safe housing further increases the health disparities observed in this community and is an important area for increased advocacy work and policy change in order to strengthen the support for these people.

To address these clear and concerning health disparities, students and physicians can leverage their influence at the city government level and advocate for safe home environments that decrease asthma triggers. Students and physicians can present epidemiological data and

statistics on asthma prevalence and disease burden to highlight health disparities in Cincinnati. Advocates can discuss the societal costs and burdens of asthma. Our main strategy is to educate officials and present data to support our advocacy.

The first issue we would address is to discuss the asthma prevalence and disease burden in Cincinnati. An article examined asthma admission rates across 91 neighborhoods in Hamilton County. Admission rates differed as much as 88-fold across neighborhoods, with 15 neighborhoods having a zero percent admission rate, illustrating simultaneously the disparity and possibility of eradicating asthma (Inequalities in Neighborhood Child Asthma Admission Rates... Distribution of asthma admission rates within Hamilton County).



A study found that 4,355 children ages 1-16 were hospitalized for asthma at Cincinnati Children’s Hospital between January of 2009 and December of 2012 (Beck et al., 2013)<sup>2</sup>. Reducing asthma triggers in the home can dramatically decrease hospitalizations and emergency department visits. Children with the highest levels of housing code violations had greater odds of revisiting the emergency department compared to those with lower or no housing code violations (Beck et al., 2014)<sup>1</sup>. “[Housing] interventions designed to reduce material deprivation and income inequalities could significantly reduce infant hospital utilization” (Brokamp, et.al, 2019)<sup>3</sup>.

Organizations like PWC which provide emergency home repairs, host educational seminars on asthma trigger reductions, and dispense cleaning supplies to reduce asthma triggers, have the ability to tackle asthma at the source. Public affordable housing and/or housing receiving external funds are more likely to be subjected to mandated housing inspections utilizing state-based housing codes (Sandel, M. T., & Bovell-Ammon, A., 2020)<sup>4</sup>. Consequently, this may lead to improved living conditions that could improve asthma outcomes for children in those circumstances.

## Works Cited

1. Beck, A. F., Huang, B., Chundur, R., & Kahn, R. S. (2014). Housing code violation density associated with emergency department and hospital use by children with asthma. *Health affairs*, 33(11), 1993-2002.
2. Beck, A. F., Moncrief, T., Huang, B., Simmons, J. M., Sauers, H., Chen, C., & Kahn, R. S. (2013). Inequalities in neighborhood child asthma admission rates and underlying community characteristics in one US county. *The Journal of pediatrics*, 163(2), 574-580.
3. Brokamp, C., Beck, A. F., Goyal, N. K., Ryan, P., Greenberg, J. M., & Hall, E. S. (2019). Material community deprivation and hospital utilization during the first year of life: an urban population-based cohort study. *Annals of epidemiology*, 30, 37-43.
4. Sandel, M. T., & Bovell-Ammon, A. (2020). Associations between federal rental housing assistance and childhood asthma—a renewed call for investing in housing for health. *JAMA pediatrics*, 174(6), 525-526.