Socioeconomic and Environmental Determinants of Asthma Disparities in Children JJ Adams Mentor: EC Cline TBIOMD 492

## Abstract

Children who suffer from asthma, a life long disease, are mainly associated with the combination of environmental and social determinants that stem from low-income and marginalized environments. Asthma prevalence is an urgent issue because it is the leading cause for children being hospitalized, with minority children suffering greatly. The main goal for my critical review is to assess the connection between social stress, poor housing, limited healthcare access, and environmental exposures and how they increase asthma unjustly. The studies highlight the socio-economic and environmental factors that affect the prevalence of asthma among children. The research addressed the following variables: air pollution, housing conditions, healthcare access, and psychosocial stressors. The findings of the traffic-linked air pollution, industrial emissions, and substandard housing are the key environmental factors responsible for the majority of asthma cases involving children of low-income families. Moreover, discrimination, anxiety, and the unavailability of healthcare services worsen these environmental threats. Based on the findings, it is concluded that non-segmented intervention which includes reform of environmental policy, public health education, and restructuring of healthcare systems is vital to the solution. Filling out the gaps in environmental disparities will result in better health equity and fewer asthma cases in high-risk groups.

## (shorten version on poster)

Asthma, a lifelong disease, unequally affects children from low-income and marginalized communities. It is a leading cause of hospitalization among children, especially minorities. My critical review highlights how social stress, poor housing, limited healthcare access, and environmental exposures—like traffic pollution and industrial emissions—contribute to an unjust increase in asthma. Key findings show that substandard housing, air pollution, and psychosocial stressors such as discrimination and anxiety intensify asthma risk. These factors often coincide, creating health scares for vulnerable children. To reduce these disparities, a multimethod approach is a must: better healthcare access, environmental policy reform, and community health education. Addressing these systemic issues can lead to improved health equity and reduced asthma rates in high-risk groups.