Air quality article review

Environment, Pollution

Brief Overview

The *Environmental Health Perspectives* is an article by Marshall, Brauer, and Frank that was published in 2009. The main focus of the paper was on the interrelations that exist between air pollution, and physical activity, and the relation of these two factors to the design of a neighborhood or community. According to the article, the modified environment poses numerous impacts on public health, depending on the relationships among such fundamental factors as design of the neighborhood, physical activity, patterns of design, water and air pollution, in addition to safety, in transportation. The authors, therefore, conducted a study to investigate the interplay of two of the most critical factors of the above; air pollution exposure and walkability. The authors defined walkability as the measure of the conduciveness of an environment to walking. According to the study, outdoor air pollution and physical inactivity were the leading causes of impairments in health (Marshall, Brauer & Frank, 2009).

Introduction

The quality of air in the environment, inside homes, schools, and other essential areas is essential not only to ensure the comfort of individuals but also the health of its inhalants. Despite great advances in technology, air quality controls, and consumer awareness, the issue of air quality and pollution has remained to be a particular area of concern. Air pollution from internal combustion engines, acid depositions and indoor air pollution have, for example, furthered the decrease in air quality in numerous communities. Such increase has numerous crucial implications to the professionals in the

environment, with the bottom line being to try harder in their bid to reduce air pollutants in order to ensure air that is of high quality (Davis, 2003). This paper will, therefore, review an article related to the issue of air quality and commend on its implication on environmental professionals. The article in this case is *Environmental Health Perspectives.*

The article makes several key points on the issue. For example, the authors argued that the ozone, vehicle exhaust, and other air pollutants found within many cities were the key causes of many health outcomes in individuals living in such environments. Such health outcomes included cardiopulmonary mortality, impaired development in lungs, atherosclerosis, and asthma, reduced lung activity, several cancers, diabetes, and reduced weight in babies. The article also argues that air pollution can be blamed for obesity and overweight because it reduces the motivation of individuals to participate in outdoor physical activities. The authors also indicate that air pollution and poor air quality reduces walkability, or the rate at which individuals walk around their neighborhoods. To stress their point, and come up with some evidence for their claims, the authors carried out a study to estimate of air pollution and come up a walkability score for a neighborhood in Vancouver. As it follows, the claims the study makes can be believed as the researchers provide enough information and evidence as to why they make certain claims (Marshall, Brauer & Frank, 2009).

The studies concluded that all the three attributes measured in the study that is the ozone concentrations, NO concentrations, and walkability rates exhibited a gradient of urban to rural with low- ozone concentrations, high

walkability levels, and NO concentrations. The study indicated that the richer neighborhoods exhibited lower concentrations of ozone, and NO, and the poorer neighborhoods exhibited higher concentrations of NO, and walkability, but, with low- ozone concentrations. The study also studied another area in the population, the ‘ sweet- spot area’ which was indicated to have low- air pollution with high levels of walkability (Marshall, Brauer & Frank, 2009). The conclusions of the study indicate that air pollution affects negatively the ability of individuals to participate in physical activity.

Conclusion

It is essential to realize that high levels of air pollution have detrimental effects on the health outcomes of individuals. As it follows, environmental professionals must come up with ways and methods of controlling air pollution and increasing air quality so as to safeguard the health of individuals. One of the ways they can accomplish this is by establishing policies that can control the rate at which the air is polluted. This would ensure that cities and urban areas are safer places to walk and live.

References

Davis, D. (2003). *When smoke ran like water: tales of environmental deception and the battle against pollution* . New York: Basic Books.

Marshall, J. D., Brauer, M. & Frank, L. D. (2009). Healthy neighborhoods: walkability and air pollution. *Environmental Health Perspectives,* 117(11): 1752-1759.