EFFECT OF THE “CLEAN AIR ACT” ON AIR POLLUTION AND SUBSEQUENT DECLINE AND IMPROVED HEALTH STATUS IN ASTHMA CASES? REVIEW OF SCIENTIFIC LITERATURE FROM 1990 – PRESENT?

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Abstract: Among goals outlined in the National Healthy People 2010 document is the need to reduce both asthma fatalities and visits to emergency departments. There is also a mandate to establish 15 surveillance centers throughout the U.S.A. Even with these bold positions there are presently 22 million Americans living with asthma, and there were approximately 12 million episodes or events last year. Sadly the incidence of asthma has continued to increase since the 1980’s. This work provides a detailed analysis of our hypothesis that the present asthma situation as it affects members of underserved urban populations and residents in close proximity to industrial operations is closely associated with the high levels of environmental pollutants. To support our hypothesis we reviewed scientific literature of numerous peer reviewed journal articles from 1990 – present, the Morbidity and Mortality Weekly Report, and reviewed information from the CDC, the US EPA, the National Morbidity, Mortality, and Air Pollution Study, the National Health Interview Survey, 2007 and from the Departments of the Environment and Health and Mental Hygiene in Maryland. Here we present evidence of findings that demonstrate an association between present asthma trends and environmental pollutants. We studied the influence that enacting of the “Clean Air Act” of 1969 and its policies have provided since it was passed and reviewed the benefits that have been derived since its inception. We also reviewed any associated benefits from subsequent anti-pollution laws. Positive correlations appeared to have been established. Importantly, these correlations still demonstrate a need for additional laws and health programs relating to medical facilities/provider access. Asthma was present in higher lifetime diagnosed case in both 10 – 17 years and 18 – 24 years group, with the latter group having more females affected. Issues relating to loopholes including the process of ‘attainment’ also still need to be remedied. However, in conclusion we feel that there continues to be progress and the effort to achieve a clean environment which will positively impact any upsurge in asthma incidence, and further provide cleaner air and the benefits of improved health outcomes for affected communities.

Keywords: Clean Air Act, environmental pollutants, asthma, incidence