

Risk of respiratory health impairment among susceptible population living near petrochemical industry- a review

ABSTRACT

Background: Petrochemical industry emits air pollutants in abundance, which may harm human health, especially the population living near the industry. Children are reported to be the population group of main concern since this susceptible population spends the majority of their time outdoors and their active lifestyle can increase their breathing rate, which then leads to a greater inhalation dose of air pollutants and greater risk of health effects. Method: The materials for this review were obtained from several on-line databases such as PubMed, Proquest, Sco-pus and Science Direct (year 1990-2015). In this review, we highlighted several relevant studies on respiratory health effects from petrochemical air pollutant exposure among children living in the neighborhood and highlighted the factors, which contributed to the severity of the health outcomes. Results: Short term petrochemical air pollutant exposure increases respiratory symptom, reduces lung function and incidence of asthma especially for those who living within 5 km radius from the industry. Conclusion: This review will provide a compilation of potential respiratory health outcomes that arises from the inhalation of petrochemical air pollutants among children.

Keyword: Petrochemical industry; Respiratory health effects; Children